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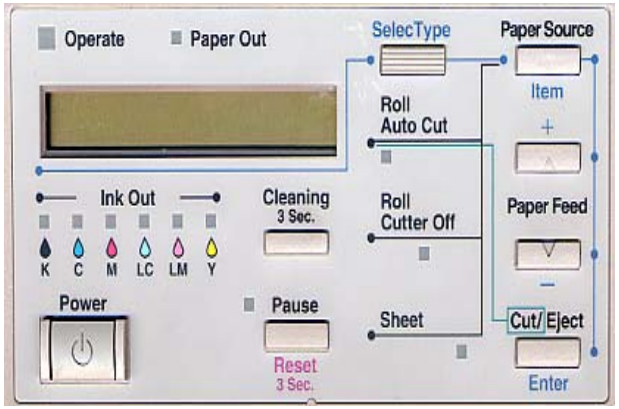
Control Panel Map

NOTE: *Although this is a guideline to navigate through the Service and User Menus, the Service Manual, Technical Bulletins or Users Guide may still be needed to reference detailed information on a setting or adjustment listed.*



SelecType Mode:
While printer LCD shows **Ready**, pressing the **[SelecType]** button will cycle through each menu selection.

Settings Available:
1. **PRINTER SETTING MENU:**
2. **TEST PRINT MENU:**
3. **PRINTER STATUS MENU:**
4. **PAPER CONFIG MENU:**
5. **MAINTENANCE MENU:**
6. **HEAD ALIGNMENT MENU:**

For navigation and details on menu items, go to page 6.

Maintenance Mode 1:
Press **[Pause]** button while powering on printer.

Pressing the **[Item]** button will cycle through each menu selection..

Settings Available:
1. **HEX DUMP MODE**:
2. **LANGUAGE MODE**]
3. **UNITS :**
4. **Parallel I/F**
5. **IEEE1284.4 MODE:**
6. **INTERNAL JOB OOUNT:**
7. **AUTO NOZZLE CHECK MODE**]
8. **SSCL B/C : -**
9. **SSCL LC/LM**
10. **SSCL M/Y:**
11. **MW7=A**
12. **MW7 BALANCE MODE:**
13. **MW1 SELECT MODE:**
14. **MW2 SELECT MODE:**
15. **DEFAULT PANEL:**
16. **CARTRIDGE INFORMATION**
17. SN Menu FACTORY USE

For navigation and details on menu items, go to page 7.

Maintenance Mode 2:
Press **[Paper Source]** + **[Cut/Eject]** + **[Paper Feed -]** buttons while powering on printer.

Settings Available:
1. **VIEW COUNTERS MENU:**
2. **CLEAR COUNTERS MENU:**
3. **SERVICE CONFIG MENU:**

All other menus are for factory use

For navigation and details on menu items, go to page 7.

Self Diagnostic Mode:
Press **[Paper Feed+]** + **[Paper Feed -]** + **[Cut/Eject]** buttons while powering on printer.

** While in this mode, pressing the **[Cleaning]** button will Auto Cut roll fed media

Settings Available:
1. **Check: Test.**
2. **Check: Adjustment.**
3. **Check: Cleaning.**
4. **Check: Print.**
5. **Check: Parameter.**
6. **Check: Life.**

Use the **[Paper Feed-]** or **[Paper Feed+]** to move up or down the menu.

For navigation and details on menu items, go to page 8.

Firmware Download:
Press **[Paper Source]** + **[Cut/Eject]** + **[Cleaning]** buttons while powering on printer.

Once in this mode, the LCD will display **F/W Download**. At this point send the IPL Data file (TPxxxx.IPL) to the printer via the copy command from a DOS prompt using the following syntax: **COPY /B Filename.UPG LPT1:** Once the download is complete, the LCD will display **F/W Update Complete.**

SelecType Menu Options

1. Use the [SelecType] or [Paper Source] to move up or down the menu.
2. Pressing the [Enter] button will move you into the sub menu.
3. Pressing the [Pause] button will move you back one menu item.

1. PRINTER SETTING MENU:

1. **[PLATTEN GAP]** - *AUTO, WIDE, NARROW,
2. **[PAGE LINE]** - *ON, OFF
3. **[INTERFACE]** - *AUTO, PARALLEL, USB, OPTION1, OPTION2
4. **[CODE PAGE]** - *PC437, PC850
5. **[ROLL MARGIN]** - *T/B 15MM, 3MM, 15MM
6. **[PAPER SIZE CHK]** - *ON, OFF
7. **[PAPER ALIGN CHK]** - *ON, OFF
8. **[INIT. SETUP]** - Exec. (This will reset the Printer Setup options to default values)

*** DENOTES Default Values**
Use [Paper Feed +] or [Paper Feed -] to change a value. Use [Cut/Eject] to confirm, save or execute the item.

2. TEST PRINT MENU:

1. **[NOZZLE CHECK]** - Print, press [Cut/Eject] to execute.
2. **[STATUS CHECK]** - Print, press [Cut/Eject] to execute.
3. **[JOB INFO]** - Print, press [Cut/Eject] to execute.

Use [Paper Feed +] or [Paper Feed -] to change a value. Use [Cut/Eject] to confirm, save or execute the item.

3. PRINTER STATUS MENU:

This menu allows you to view all the Status Check items on the LCD display without printing the Status Check page from the Test Print menu.

Use **[Paper Feed +]** or **[Paper Feed -]** to move up or down the menu.

4. PAPER CONFIG MENU:

1. **[Paper Number]** - *Standard (range is 1-10)
2. **[Cut Pressure]** - *100% (range is 0% - 150%)
3. **[Cut Method]** - *3 Step, 4 Step
4. **[Ppr Feed Adj.]** - *0.00% (range is -1.00% - +1.00%)
5. **[Drying Time]** - *0.0sec. (range is 0.0sec. - 10.0sec.)
6. **[Suction]** - *Normal,Weak, Weakest
7. **[Print Adj.]** - *5 (range is 1-9)

**** DENOTES Default Values**
Use [Paper Feed +] or [Paper Feed -] to change a value. Use [Cut/Eject] to confirm, save or execute the item.

5. MAINTENANCE MENU:

1. **[BLACK INK CHANGE]** - EXEC. press [Cut/Eject] to execute. (Executes the mode to change black ink).
2. **[CUT REPLACE]** - EXEC. press [Cut/Eject] to execute. (Executes the cutter replacement process).

Use [Cut/Eject] to confirm, save or execute the item.

6. HEAD ALIGNMENT MENU:

1. **[PAPER THICK.]** - STD, XMM (where X= 0MM - 1.6MM)

1a. Once the thickness has been set, you can choose the head alignment pattern you want to perform. The options are:

a) **Bi D ALL**
b) **BI-D LC**
c) **UNI-D**

Use [Paper Feed +] or [Paper Feed -] to change a value. Use [Cut/Eject] to confirm, save or execute the item.

Maintenance Mode 1 Options

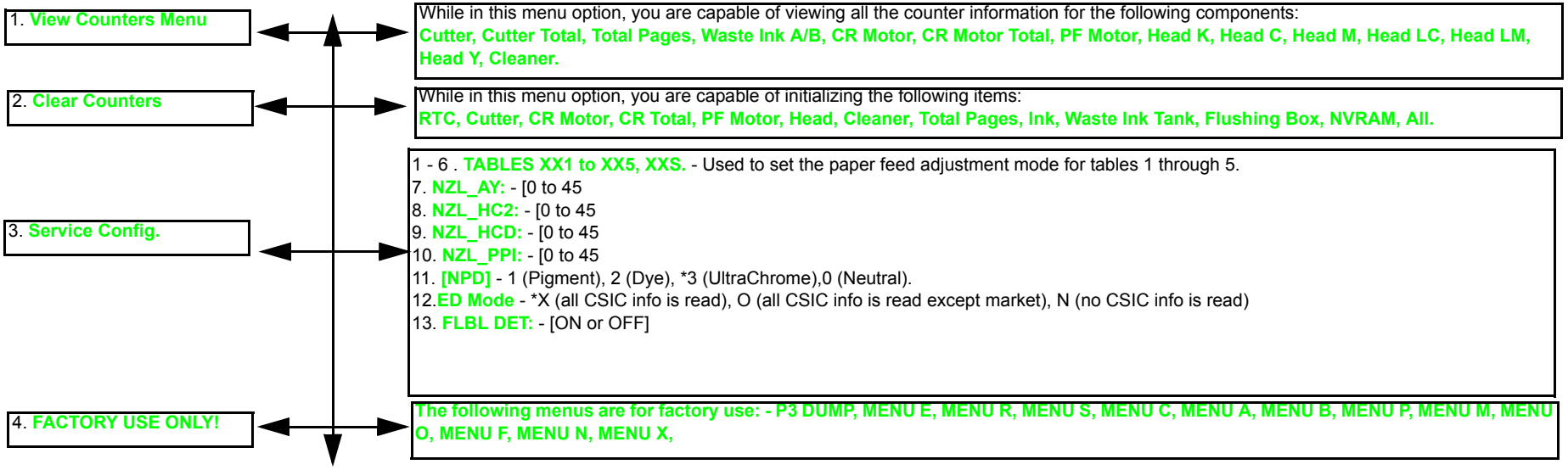
1. Use the [Paper Source] to move down the menu.
2. Pressing the [Enter] button will move you into the sub menu.
3. Pressing the [Pause] button will move you back one menu item.

1. **HEX DUMP MODE**: - Prints data in Hexadecimal format for troubleshooting control codes.
2. **LANGUAGE MODE:** - Determines the language used for the LCD Display. [English, Potuguese, Spanish, German, Italian, French]
3. **UNITS :** - Set to Metric of Inches/Feet
4. **Parallel I/F:** - Sets the parallel interface mode. [Compatible or ECP]
5. **IEEE1284.4 MODE:** - [On or Off]
6. **INTERNAL JOB OOUNT:** - [On or Off]
7. **AUTO NOZZLE CHECK MODE:** - [On or Off]
8. **SSCL B/C :** - Super Strong Cleaning for Black/Cyan
9. **SSCL LC/LM :** - Super Strong Cleaning for Light Cyan / Light Magenta
10. **SSCL M/Y:** - Super Strong Cleaning for Magenta/Yellow
11. **MW7=A** - . Range is A thru C.
12. **MW7 BALANCE MODE:** - Adjust MW7 feeding in mode B when printing. [-30 to +30]
13. **MW1 SELECT MODE:** - Used to set the M/W value [1 to 10] 720 mode
14. **MW2 SELECT MODE:** - Used to set the M/W value [1 to 7] 1440 mode
15. **DEFAULT PANEL:** - Used to reset the panel to default settings
16. **CARTRIDGE INFORMATION MENU:** - Gives details about ink cartridges (type and usage).
17. SN Menu - **For Factory Use only.**

Paper Feed] + or [Paper Feed -] to change value. Use [Cut/Eject] to Confirm, Save or Execute the item/value.

Maintenance Mode 2 Options

1. Use the [SelecType] to move down the menu.
2. Pressing the [Paper Source] button will move you into the sub menu.
3. Pressing the [SelecType] button will move you back one menu item.


1. View Counters Menu
While in this menu option, you are capable of viewing all the counter information for the following components:
Cutter, Cutter Total, Total Pages, Waste Ink A/B, CR Motor, CR Motor Total, PF Motor, Head K, Head C, Head M, Head LC, Head LM, Head Y, Cleaner.
2. Clear Counters
While in this menu option, you are capable of initializing the following items:
RTC, Cutter, CR Motor, CR Total, PF Motor, Head, Cleaner, Total Pages, Ink, Waste Ink Tank, Flushing Box, NVRAM, All.
3. Service Config.
1 - 6 . TABLES XX1 to XX5, XXS. - Used to set the paper feed adjustment mode for tables 1 through 5.
7. NZL_AY: - [0 to 45
8. NZL_HC2: - [0 to 45
9. NZL_HCD: - [0 to 45
10. NZL_PPI: - [0 to 45
11. [NPD] - 1 (Pigment), 2 (Dye), *3 (UltraChrome),0 (Neutral).
12.ED Mode - *X (all CSIC info is read), O (all CSIC info is read except market), N (no CSIC info is read)
13. FLBL DET: - [ON or OFF]
4. FACTORY USE ONLY!
The following menus are for factory use: - P3 DUMP, MENU E, MENU R, MENU S, MENU C, MENU A, MENU B, MENU P, MENU M, MENU O, MENU F, MENU N, MENU X,

Self Diagnostic Mode Options

1. Use the [SelecType] or [Paper Source] to move up or down the menu.
2. Pressing the [Enter] button will move you into the sub menu.
3. Pressing the [Pause] button will move you back one menu item.

1. **Check: Test**

1. **[Version]** - (Checks firmware version, dip sw. settings and control panel & main board versions.
2. **[Panel]** - (Checks control panel buttons, LCD display and LED indicators.
3. **[Sensor]** - (Checks all optical and physical switches - On/Off, Open/Close)
4. **[Encoder]** - (Checks CR and PF motor encoders)
5. **[Fan]** - (Checks fans - On/Off)
6. **[Elec.]** - (Checks maintenance record and fatal error history)
7. **[D/A Revision.]** - (Factory Use Only - head voltage correction)
8. **[Head Signal]** - (Factory Use Only - head pulse check)
9. **[CSIC]** - Checks the CSIC information for the ink cartridges and maintenance tank
10. **[Actuator]** - Checks the cutter actuator
11. **[Actuator 2]** - Checks the cutter solenoid and pump motor

When in the sub menu of each item, pressing the [Pause] button will back up one menu.

2. **Check: Adjustment**

1. **[Check Skew]** - Checks for paper skew.
2. **[Input Rank]:** - Allows you to input the Head Rank.
3. **[Check Nozzle]:** - Prints a detailed nozzle check, horizontal and vertical pattern.
4. **[Adj:Offset Adj.]:** - Calibrates the laser system used in nozzle detection.
5. **[Adj:Det. Res.]:** - Tests and prints the results of the nozzle detection system.
6. **[Cut Adj.]:** - Allows adjustment of cutter pressure.
7. **[Adj:A13 Slant]:** -Head Angular magenta against black .
8. **[Adj:A123 Slant]:** - Head linear test.
9. **[Adj: B123 Slant]:** - Head linear test.
10. **[Bi-D]:** - Prints a pattern to allow for adjustment for Bi-D (Double Weight Matte, VSD1).
11. **[Head LR Adj.]:** - Prints a pattern to allow for adjustment of the Head Gap (Head LR).
12. **[Copy Param.]:** - Copies parameters to backup area of NVRAM.
13. **[Bi-D2]:** - Prints a pattern to allow for adjustment for Bi-D2 (Photo Glossy Paper, VSD2).
14. **[Feed Adj. T&B]:** - Prints a pattern and allows adjustment for 1000mm feed length.
15. **[Adj: Top & Bottom]:** - Prints a pattern to allow adjustment for top and bottom margin.
16. **[Adj: Rear Sensor Pos.]** - Allows for adjustment of the rear sensor.
17. **[Test Print]** - Prints pattern of all adjustment variables.
18. **[Clean Head]** - Performs ink drain function. This process should only be done during refurbishment of product.
19. **[Counter Clear]** - Clears ink flag counter to 0.

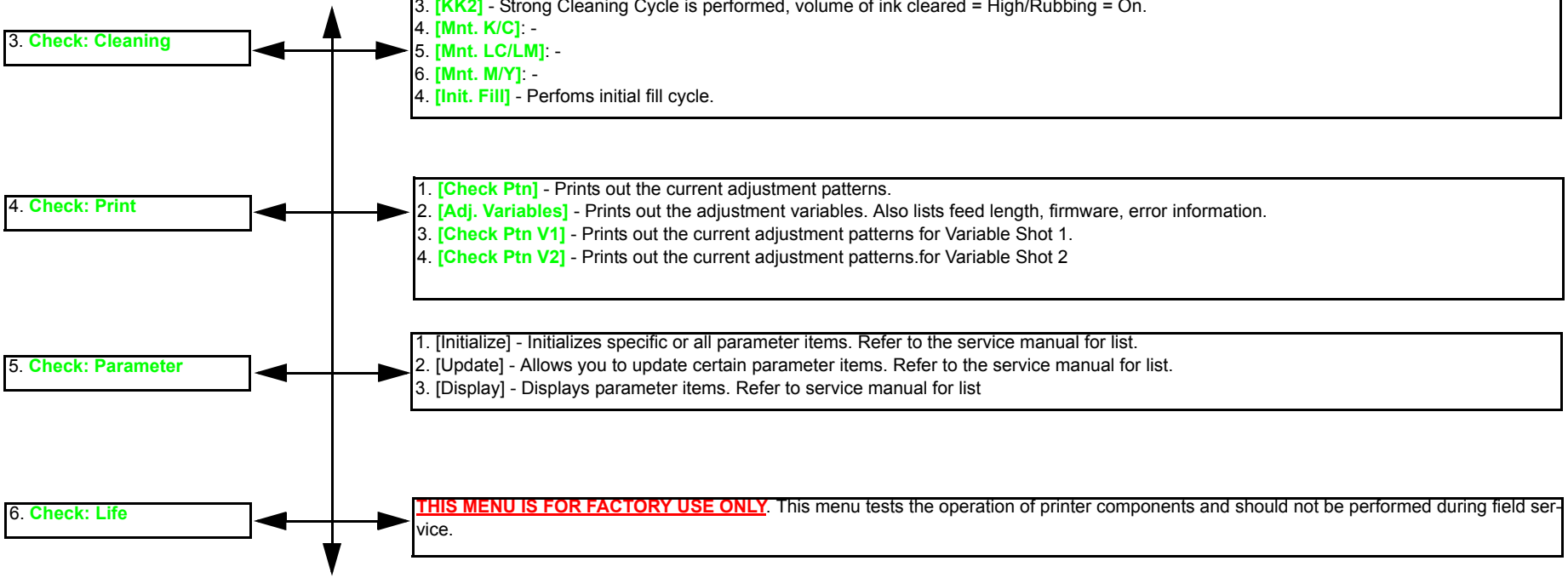
When in the sub menu of each item, pressing the **[Pause]** button will back up one menu.

3. **Check: Cleaning**
4. **Check: Print**
5: **Check: Parameter**
6. **Check: Life**

Go to Page 9

Self Diagnostic Mode Options, cont.

1. Use the [SelecType] or [Paper Source] to move up or down the menu.
2. Pressing the [Enter] button will move you into the sub menu.
3. Pressing the [Pause] button will move you back one menu item.

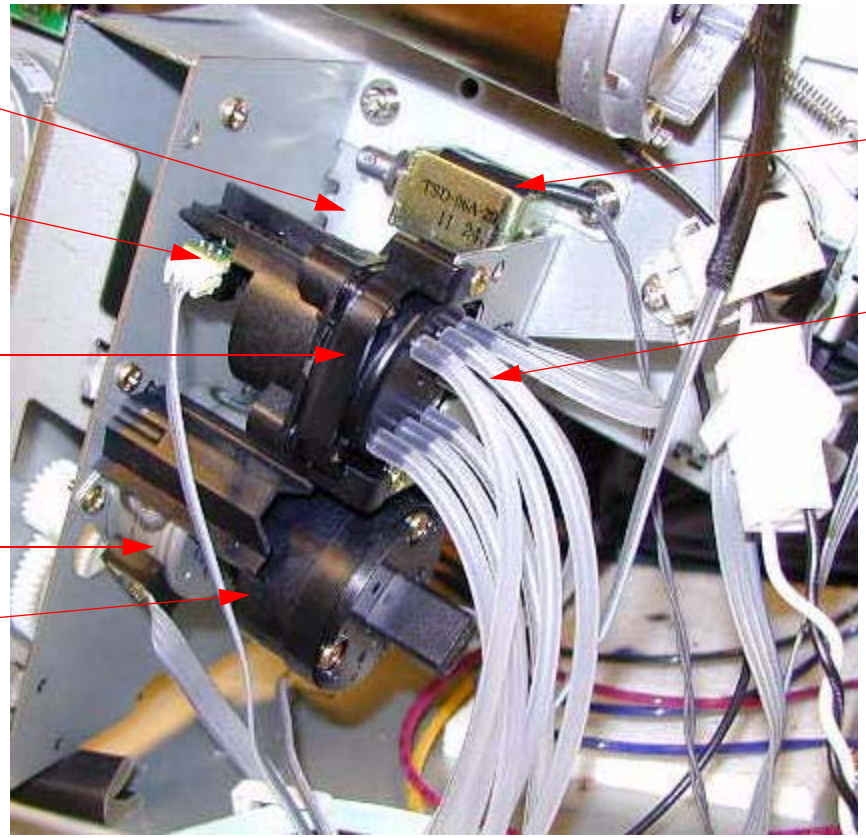

3. Check: Cleaning
1. [KK0] - Normal Cleaning Cycle is performed, volume of ink cleared = Low.
2. [KK1] - Strong Cleaning Cycle is performed, volume of ink cleared = Med./Rubbing = Off.
3. [KK2] - Strong Cleaning Cycle is performed, volume of ink cleared = High/Rubbing = On.
4. [Mnt. K/C]: -
5. [Mnt. LC/LM]: -
6. [Mnt. M/Y]: -
4. [Init. Fill] - Perfoms initial fill cycle.
4. Check: Print
1. [Check Ptn] - Prints out the current adjustment patterns.
2. [Adj. Variables] - Prints out the adjustment variables. Also lists feed length, firmware, error information.
3. [Check Ptn V1] - Prints out the current adjustment patterns for Variable Shot 1.
4. [Check Ptn V2] - Prints out the current adjustment patterns.for Variable Shot 2
5. Check: Parameter
1. [Initialize] - Initializes specific or all parameter items. Refer to the service manual for list.
2. [Update] - Allows you to update certain parameter items. Refer to the service manual for list.
3. [Display] - Displays parameter items. Refer to service manual for list
6. Check: Life
THIS MENU IS FOR FACTORY USE ONLY. This menu tests the operation of printer components and should not be performed during field service.

Air Pressure System (Ink Cartridges)

Purpose:

The air pressure system for the ***Ink Cartridges*** inflates the ***Ink Cartridges*** to 1.1 atmospheres to pump ink from the ***Cartridges*** to the ***Print Head Sub Tanks***.

Components:



Operation:

1. When the ***Printer*** is turned on, the ***Air Pressure Release Solenoid*** energizes, closing the ***Air Pressure Release Valve***, sealing the system.

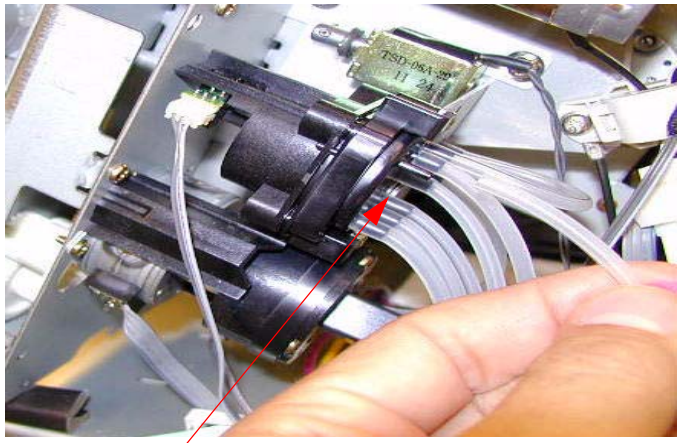
2. The ***Air Pump Motor*** runs the ***Air Pump*** until the air pressure in the entire system is high enough to activate the ***Air Pressure Sensor***.

3. Any time that the air pressure in the system drops below 1.1 atmospheres, the ***Pump Motor*** runs until the air pressure is back to the proper level.

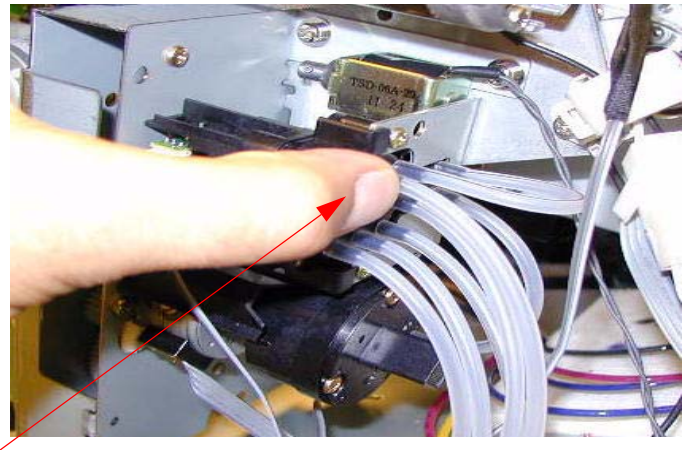
4. The ***Air Pressure Release Solenoid*** opens the ***Air Pressure Valve*** when the ***Ink Cartridge Bay Door*** is opened, or the ***Printer*** is turned off, depressurizing the system.

Troubleshooting:

Determine where the leak in the system exists.



1. Remove one of the Hoses running to the Ink Cartridges.



2. Cover the outlet with a finger, and see if the system presurizes.

3. Repeat until the leak is found

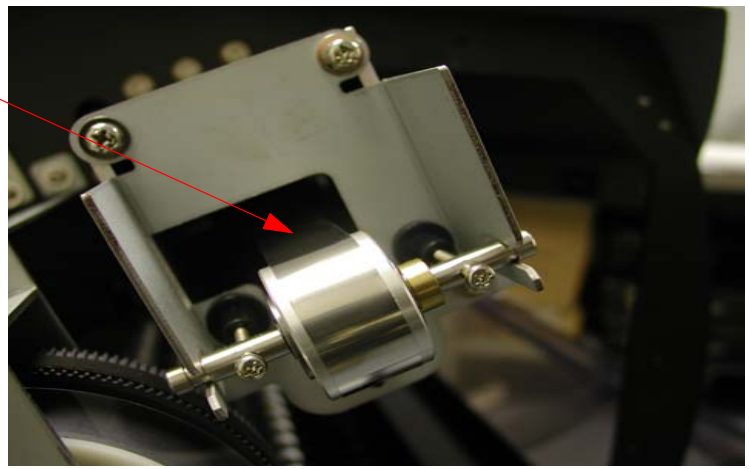
The cartridge connected to the tube that corresponds to the leaking tube is the most likely cause of the leak.

Carriage Belt Adjustment

The following instructions are for the purpose of performing the belt tension adjustment when the 300g Tension Gauge is not available. Recommended tension is 100g.

1. Remove the Left Side cover. (6 Screws)
2. If replacing or removing the belt, place a mark on the current position of the adjustment screws.
3. Tighten or loosen the screws evenly to increase or decrease the belt tension.
   - 3.1 The belt should be in the center of the pulley and remain in the center when moving the CR assembly left to right the distance of the mechanism.
4. Check the belt tension by pressing on the belt at the side frame in the area indicated.
   - 4.1 The belt will flex approximately 1/8" before tension is felt.

Press Here

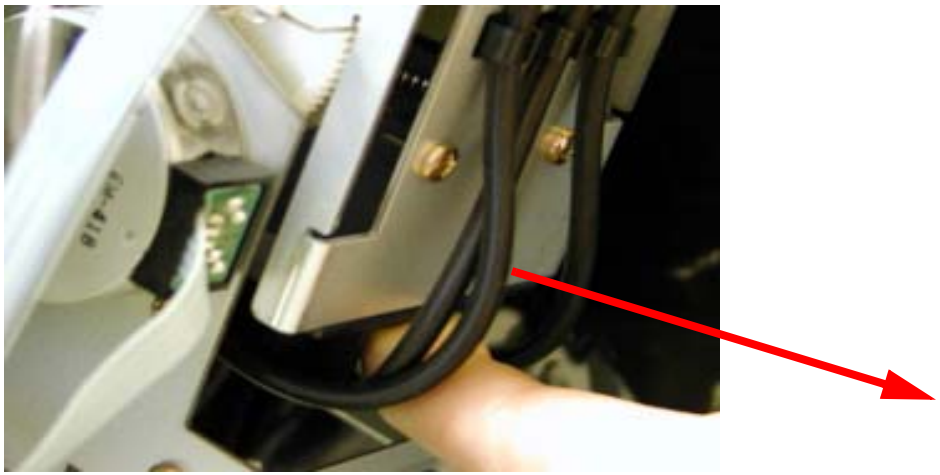


NOTE: If the CR Timing belt tension is to loose, you may encounter carriage errors. A slight vibration may occur on the far left side of the mechanism, tighten belt until vibration is eliminated.

Carriage Mechanism Replacement

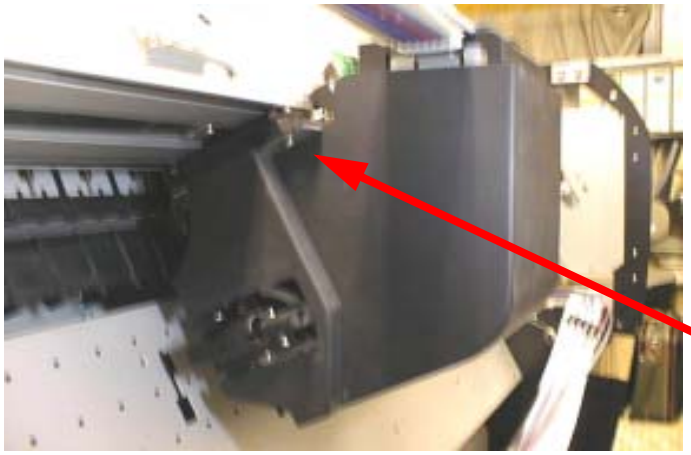
New Carriage Part # : CR ASSY 1277733

1. Unplug the ***Printer***.
2. Remove the ***Control Panel.***
3. Remove the ***Top Cover***.
4. Remove the ***Left Side Cover***.
5. Remove the ***Right Side Cover***.
6. Place a drop cloth under the center of the ***Printer***.
7. Release the ***Print Head*** by pulling back on the ***Cap Assembly*** as shown below.



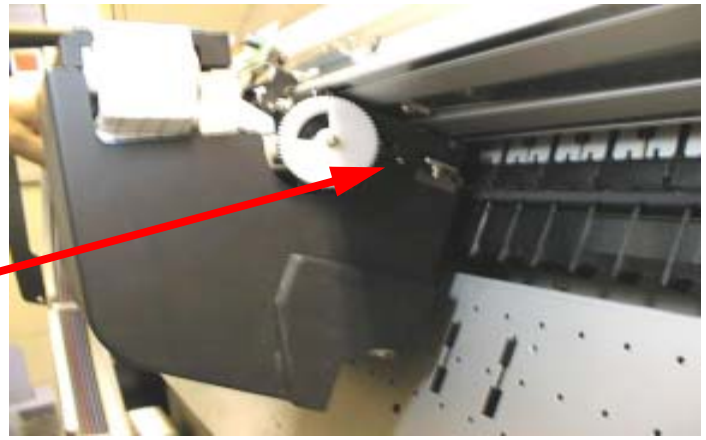
9. Move the ***Print Head*** to the center of the ***Printer***.

10. Remove the ***Print Head Cover*** by removing the two ***Screws*** as shown below.



Left side
Screw

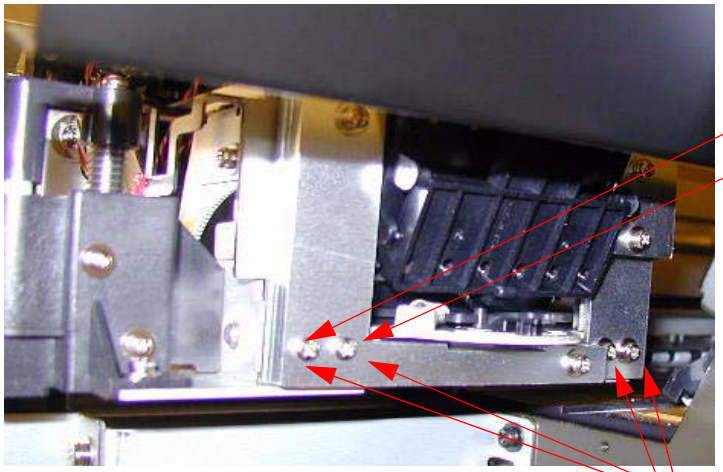
Right side
Screw



11. Remove the ***Print Head Weights***.

11.1 Move the ***Print Head*** to the far left side of the ***Carriage Rail***.

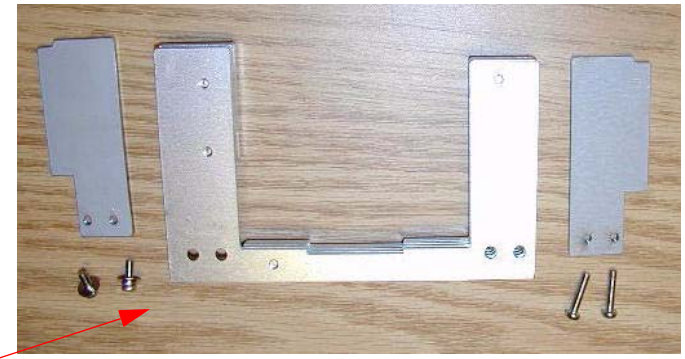
11.2 Remove the 4 ***Screws*** pictured below.



2 long ***Screws***
go here

View from below

Remove 4 ***Screws***

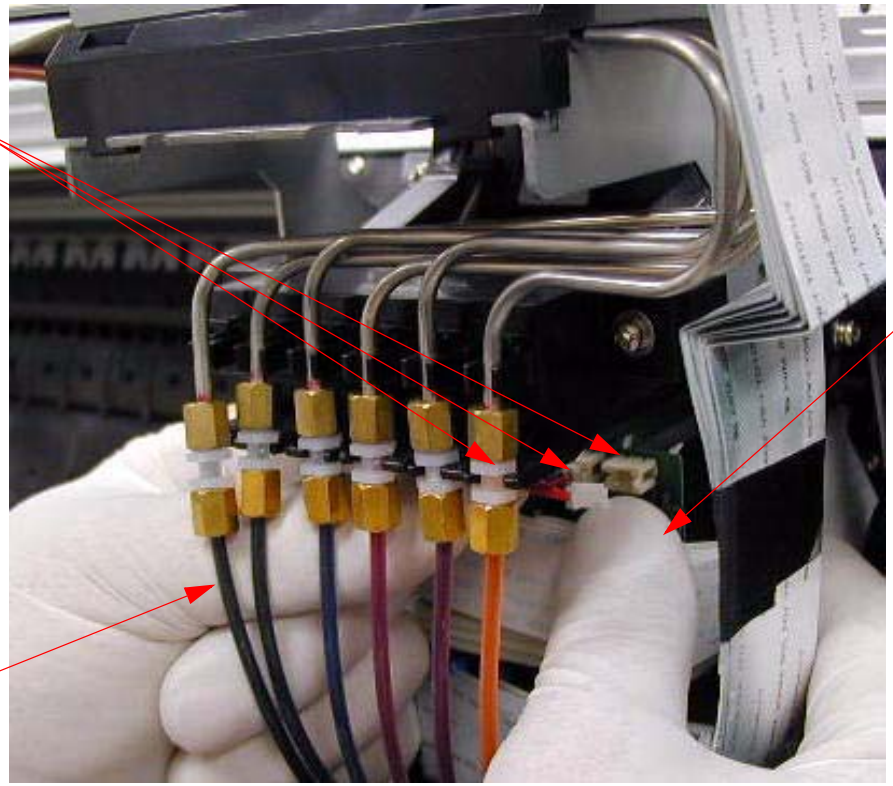


This picture is reversed
from the one on the left.

Weights *and* ***Screws***

12. Unplug the 3 ***Connectors,*** and disconnect the Ground Wire, on the ***Print Head***. Ensure that the ***Connector Board*** is supported by your thumb when you unplug the ***Connectors***.

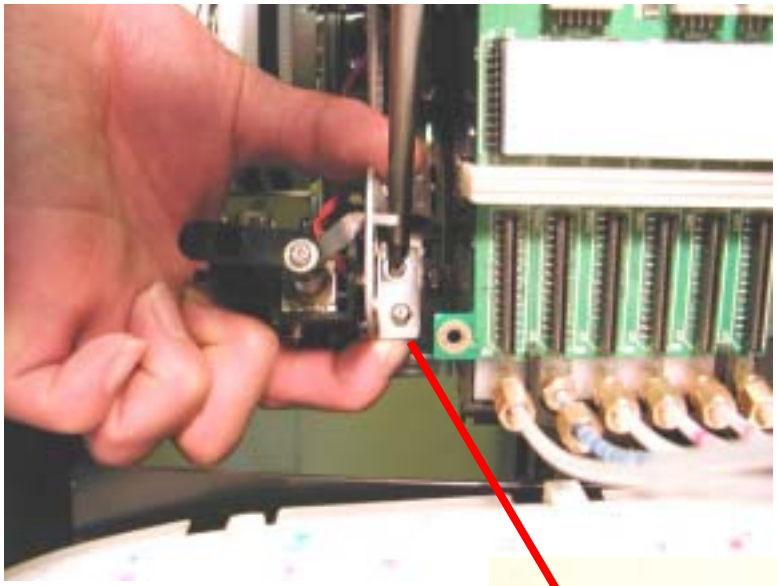
Unplug the 3 ***Connectors.***



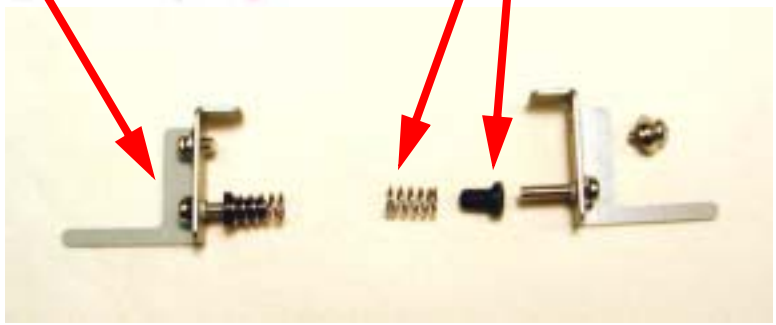
Thumb for support.

The Ground Wire is fastened on this side. Disconnect from the Print Head by removing 1 Screw.

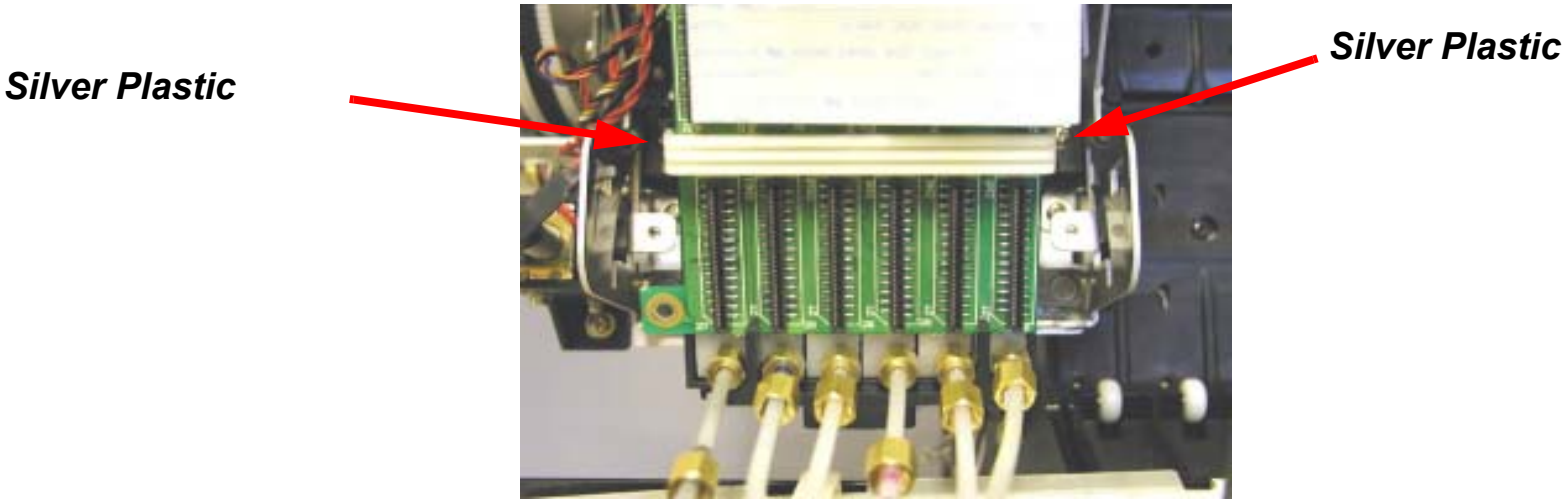
13. Remove the small metal ***Spring Tension Bracket Assemblies*** from the left and right side of the ***Print Head***.



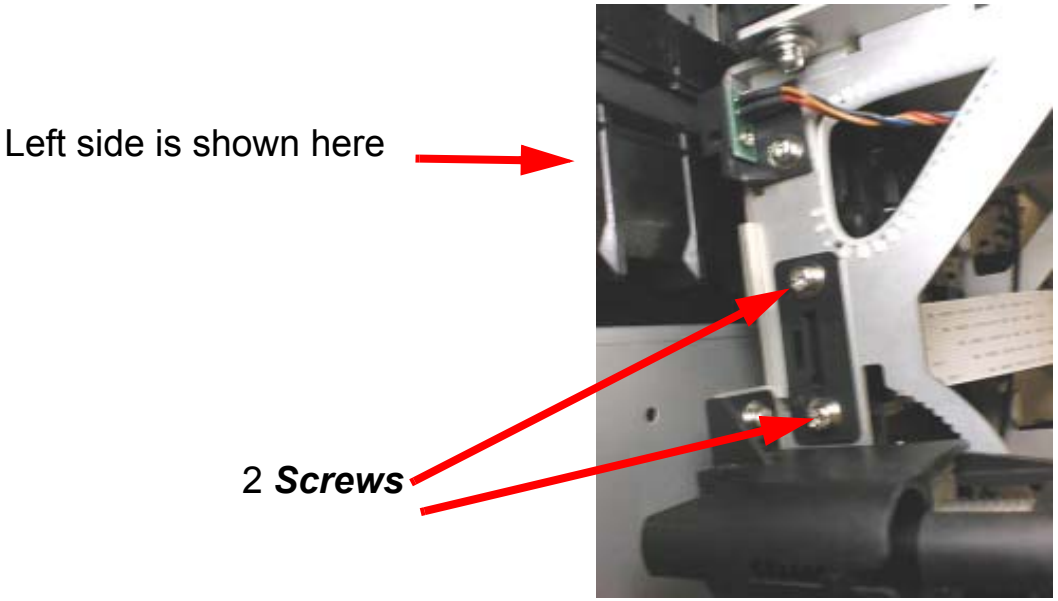
Glue the ***Spring*** to the black plastic piece for easier re-assembly.



14. Remove the 2 ***Silver Plastic Screws*** shown below.



15. Remove the 2 ***Screws*** from the left and right ***Print Head Mounts***, and slide out the ***Mounts***.



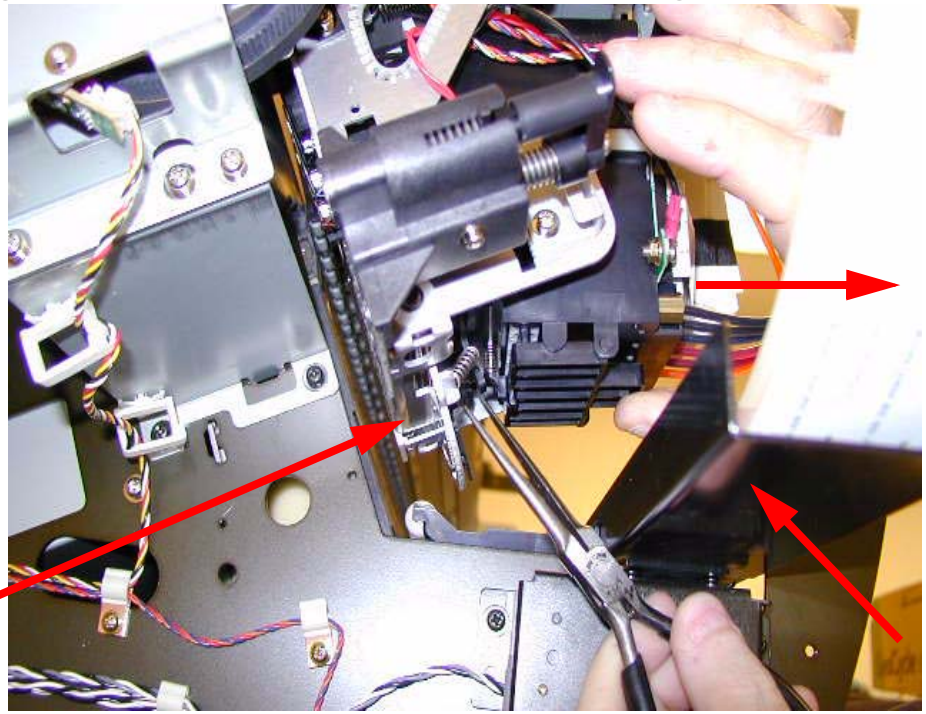
16. Remove the ***Print Head Alignment Tension Spring***.

16.1 Move the ***Print Head Alignment Lever*** (A13 Slant) to the right, to release pressure on the ***Spring***.

16.2 Gently grab the ***Spring*** with a pair of needle nose pliers.

16.3 Pivot the bottom of the ***Print Head*** away from the ***Carriage Mechanism*** to release pressure on the ***Spring***.

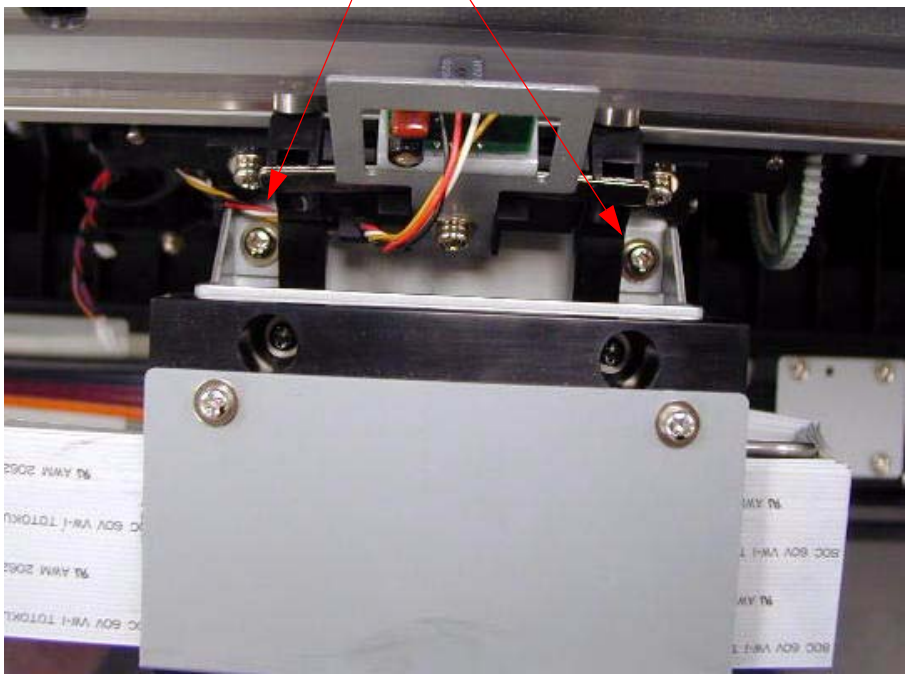
16.4 Remove the ***Spring***, but leave the ***Print Head*** in the ***Carriage Mechanism***.

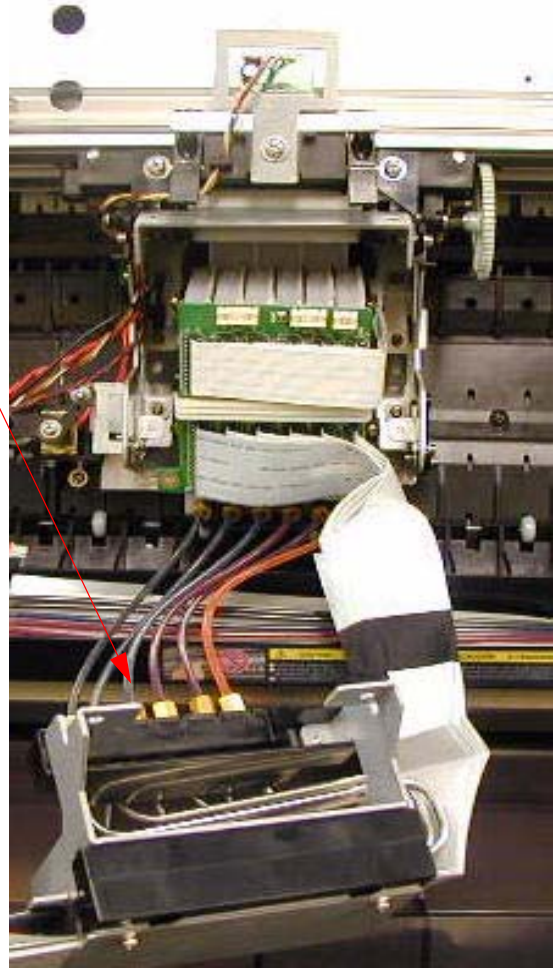


17. Remove top ***Print Head Tube/Cable Bracket.***

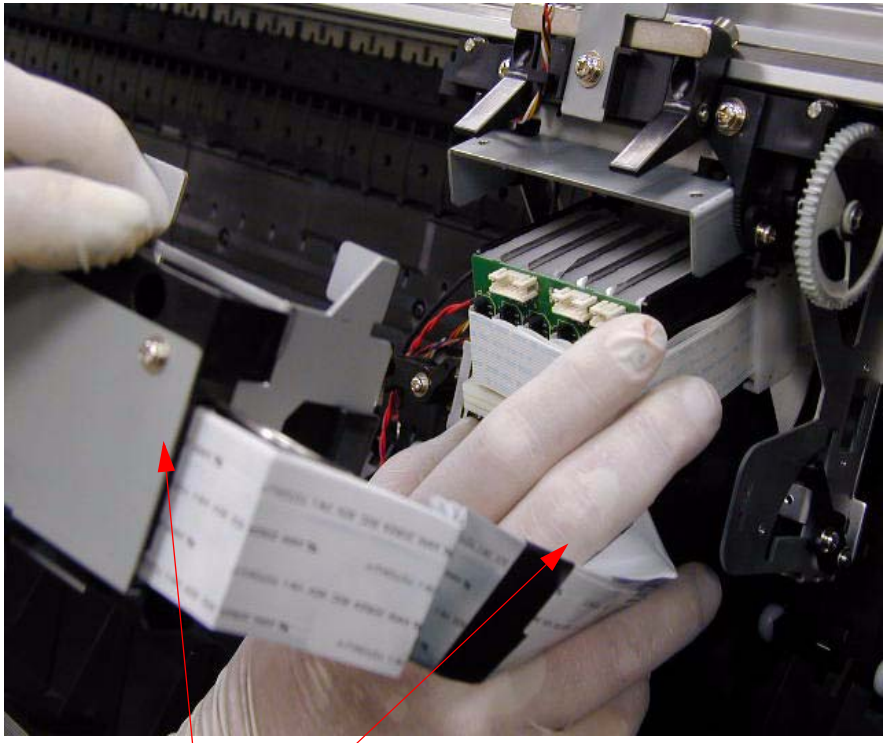
The ***Bracket*** will detach like this.

Remove 2 ***Screws***.



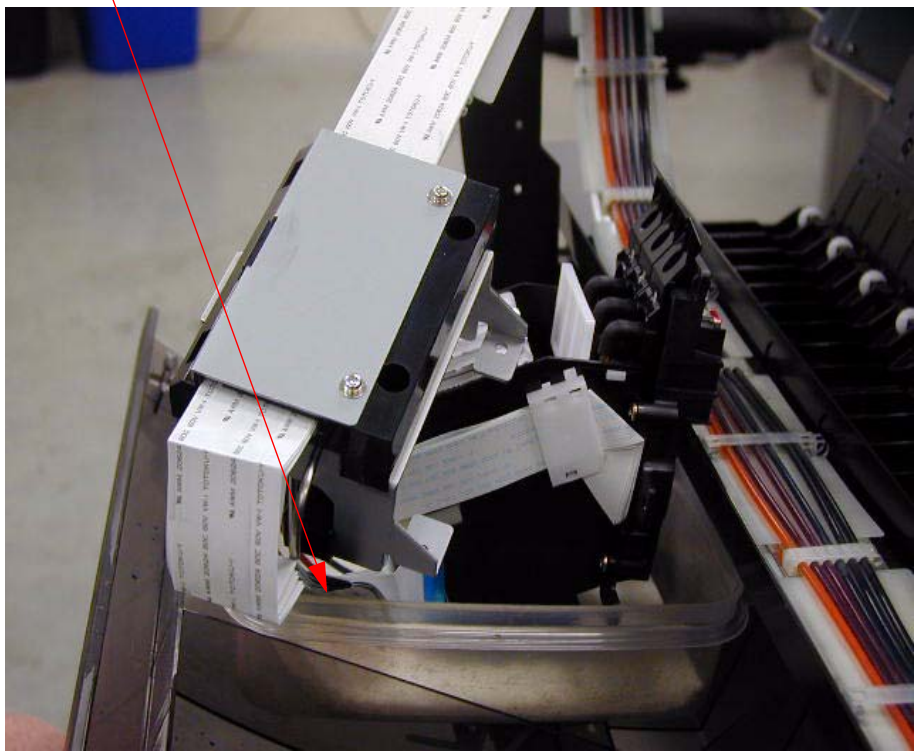


18. Remove the ***Print Head Assembly,*** and place to the right side.



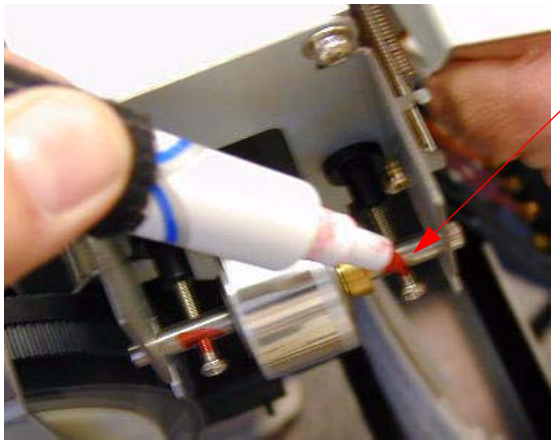
Support the ***Tube/Cable Bracket*** with one hand, while removing the ***Print Head*** with the other.

Place ***Both Assemblies*** on the right side of the ***Front Cover***. The ***Print Head*** should not leak, but placing the ***Assemblies*** in a container is prudent.



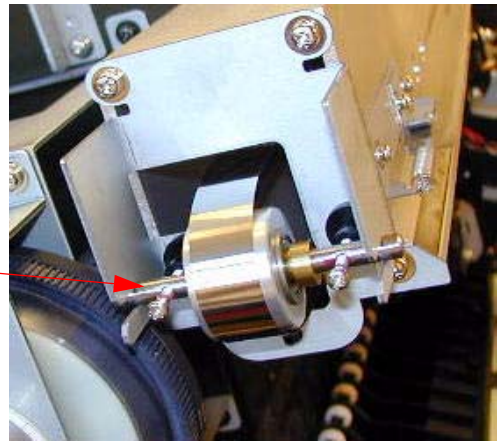
19. Disconnect the ***Carriage Belt*** from the ***Carriage Assembly***.

19.1 Mark the ***Carriage Belt Tension Screws*** to record the current position, and turn the ***Screws*** to release the ***Carriage Belt*** tension.

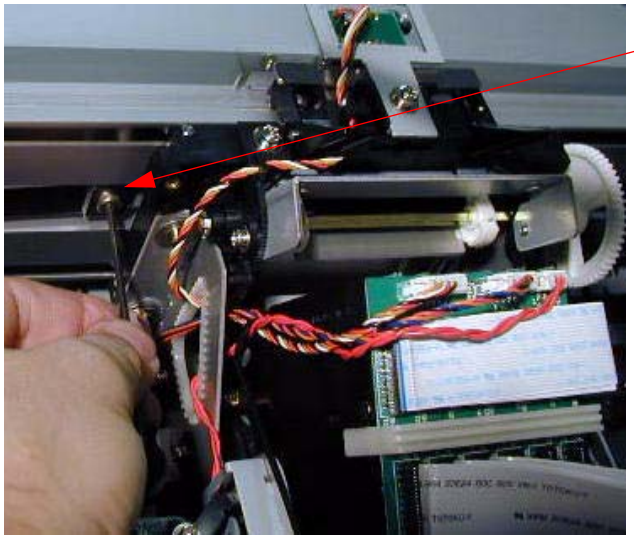


Mark the ***Screws***

Release the tension on the ***Belt*** by loosening the ***Screws***.

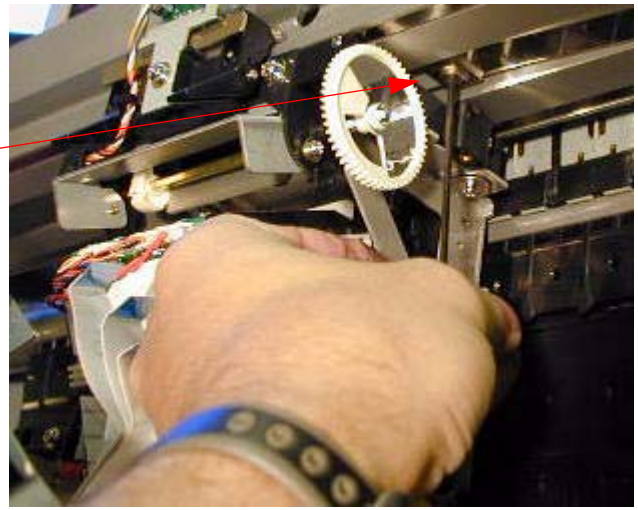


20. Disconnect the ***Carriage Belt*** by removing the 2 ***hex/allen Screws*** (2.5mm).



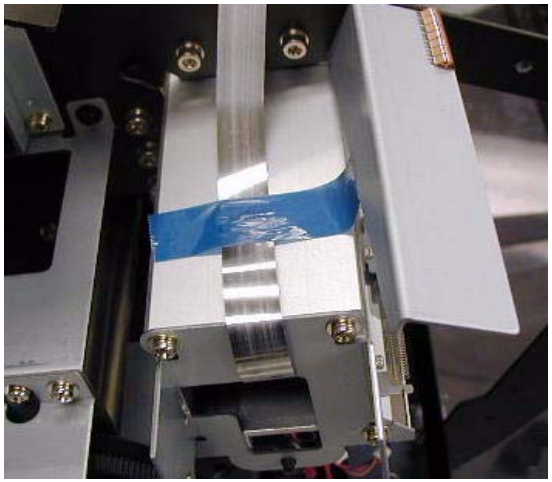
Left Side hex/allen Screw (2.5mm)

Right Side hex/allen Screw (2.5mm)



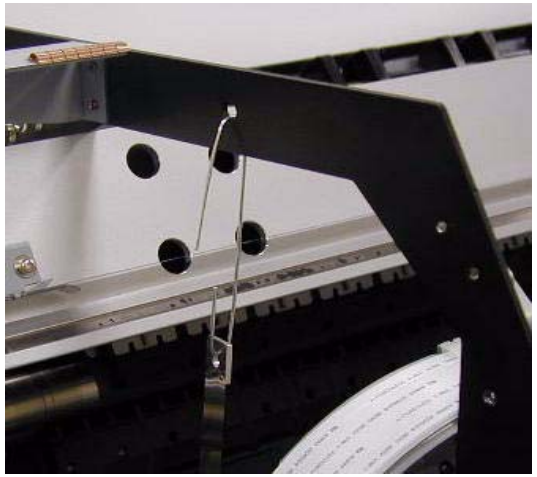
Right Side Belt, and ***Fastener***

21. Secure the ***Carriage Belt,*** to protect it.



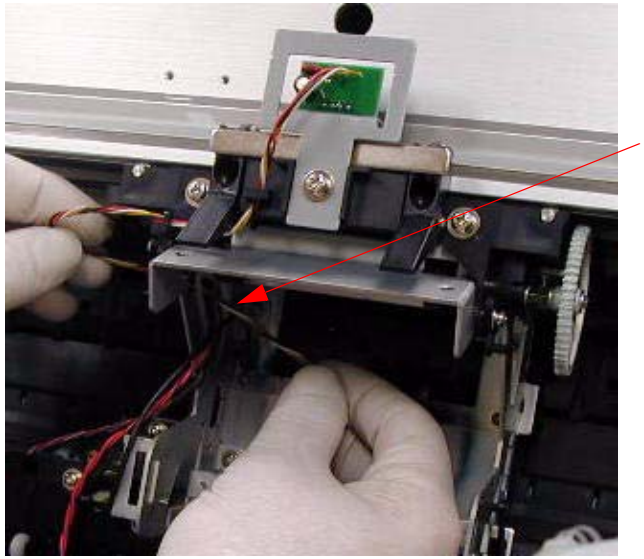
Left Side (be prepared to remove the left over adhesive, if tape is used).

Securing the ***Carriage Belt*** ensures that the ***Belt*** will not be nicked, or twisted.



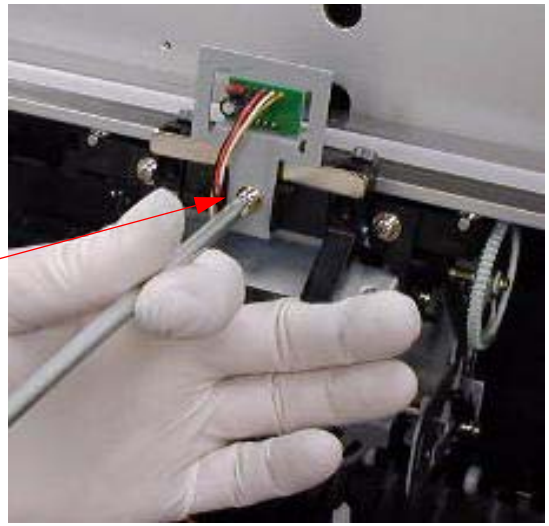
Right Side

22. Remove the ***Carriage Encoder***.

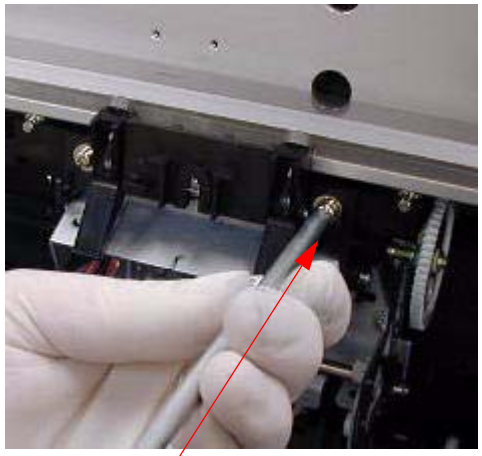


Free the ***Encoder Sensor Wire***.

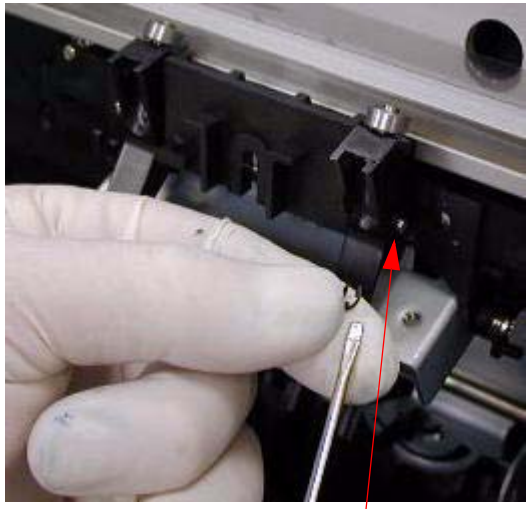
Remove 1 ***Screw*** and the ***Sensor***.



23. Remove 2 ***Top Bearings Assemblies.***



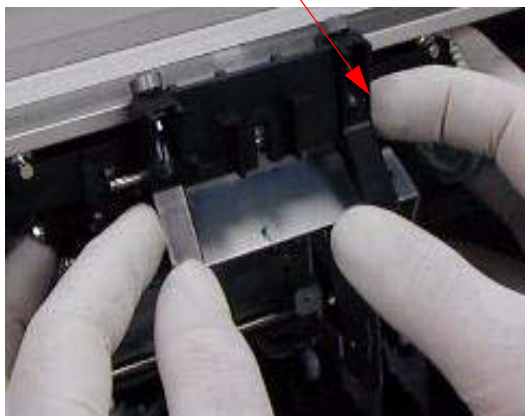
1. Remove 1 ***Screw.***



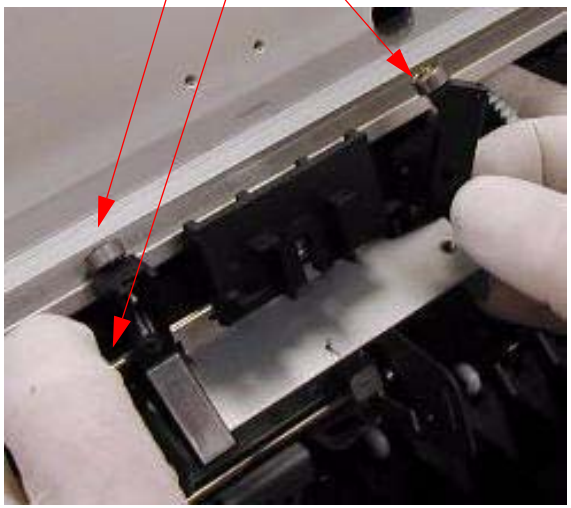
2. Remove the right ***E-Ring.***

3. Remove 1 ***Screw.***

4. Slide the ***Shaft*** to the left.



5. Remove the ***Shaft*** and 2 ***Bearing Assemblies.***



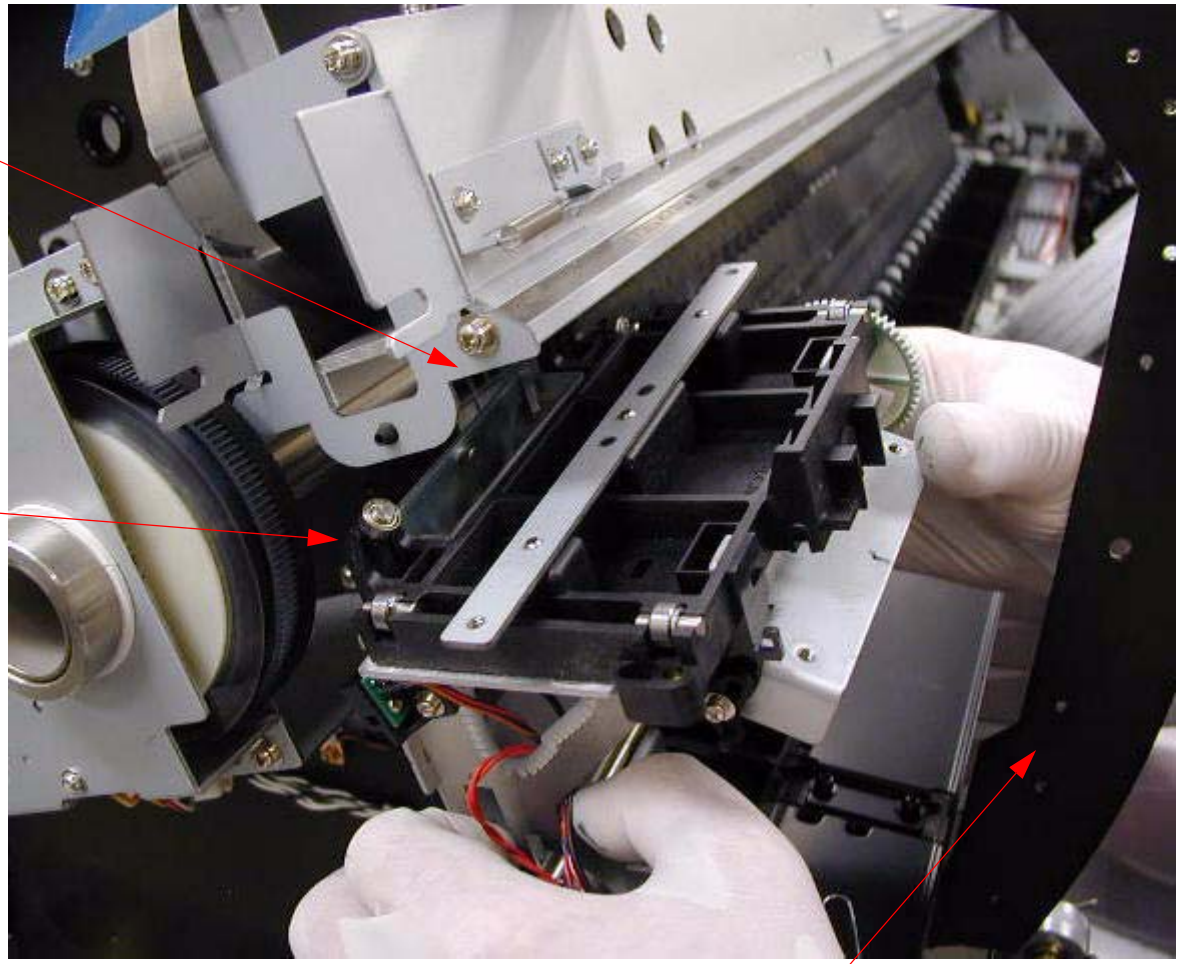
6. Remove the ***Bracket,*** that is held in place by the ***Bearing Shaft.***

24. Remove the ***Carriage***.

1. Move the ***Carriage Assembly*** to the far left of the ***Carriage Rail***.

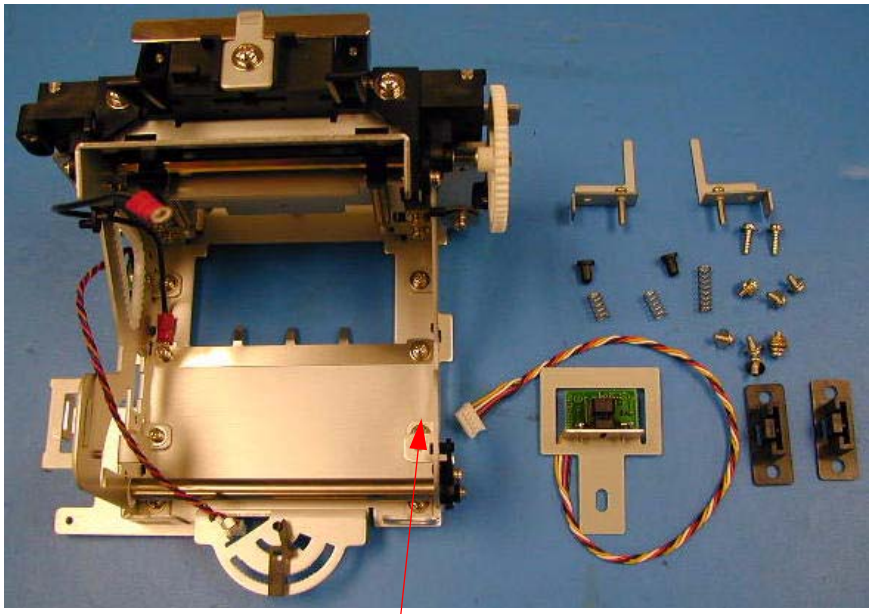
2. Maneuver the Carriage Assembly to release the ***Rear Carriage Bearings***.

3. Remove from the ***Printer***.

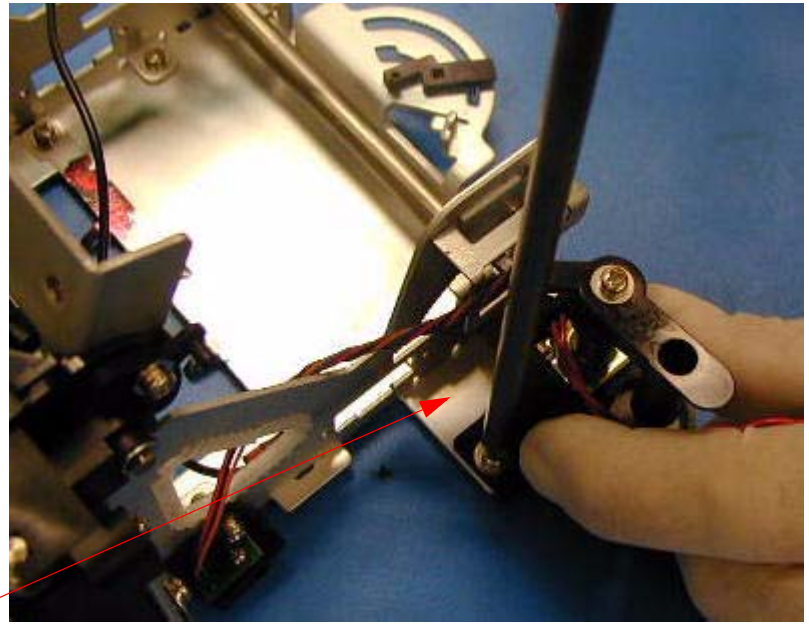


Left Side Frame.

25. Place the old ***Carriage Mechanism*** next to the new ***Carriage Mechanism,*** and transfer components***.***

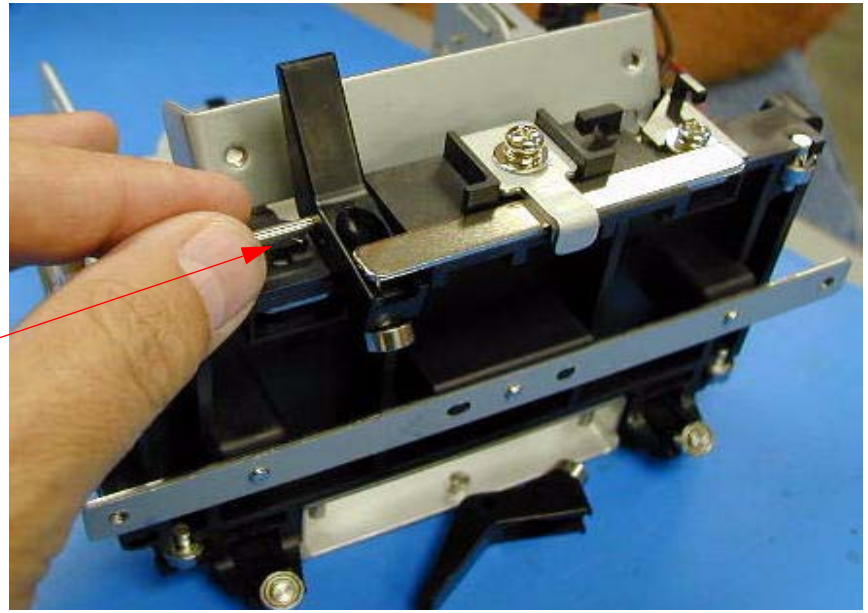


New ***Carriage Assembly***.



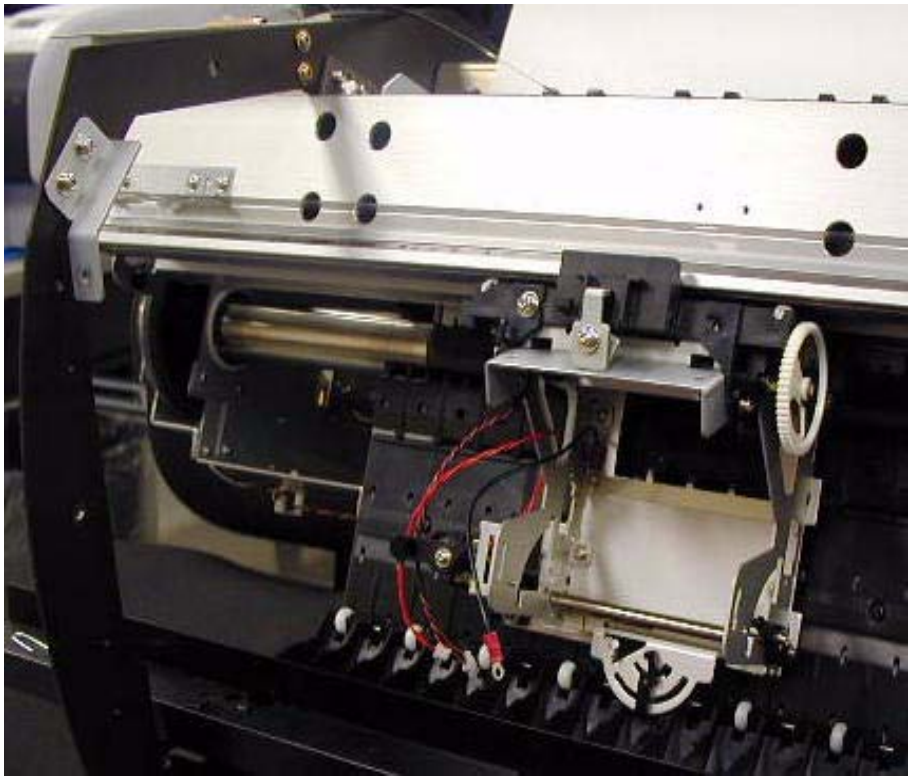
1. Transfer the ***Solenoid*** from the old ***Carriage*** to the new ***Carriage.***

2. Remove the ***Top Bearing Assemblies*** from the new ***Carriage.***



26. Install the ***New Carriage Assembly*** on the left side of the ***Carriage Rail***, and slide to the middle.

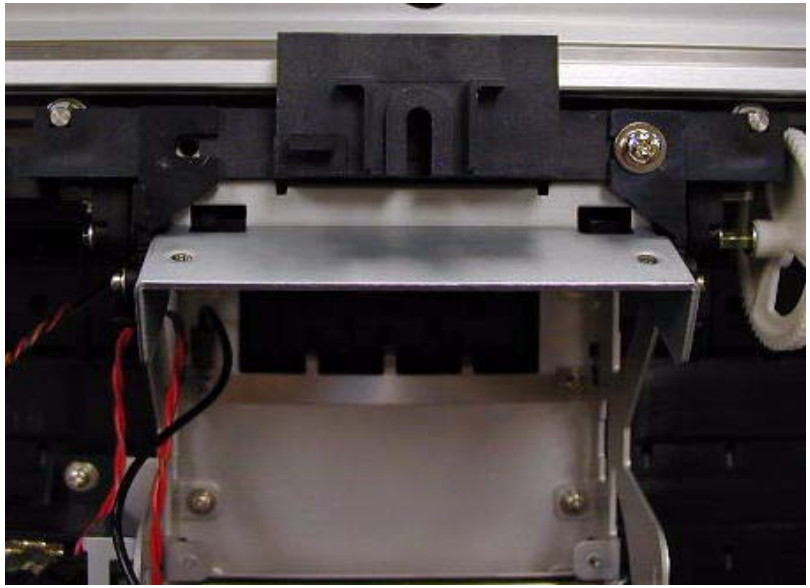
1. Install the ***New Carriage Assembly,*** on the far left side of the ***Carriage Rail***.



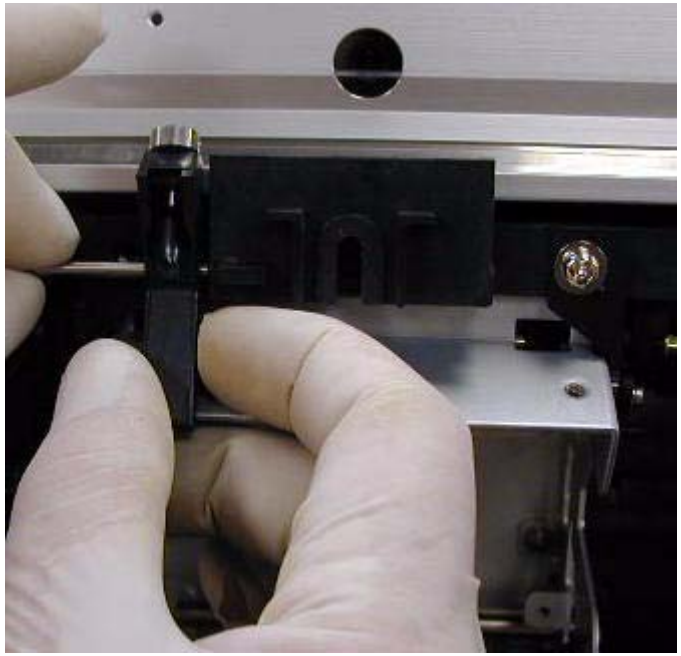
2. Slide to the right side of the ***Left Side Frame***.

27. Install the ***Top Bearing Assemblies.***

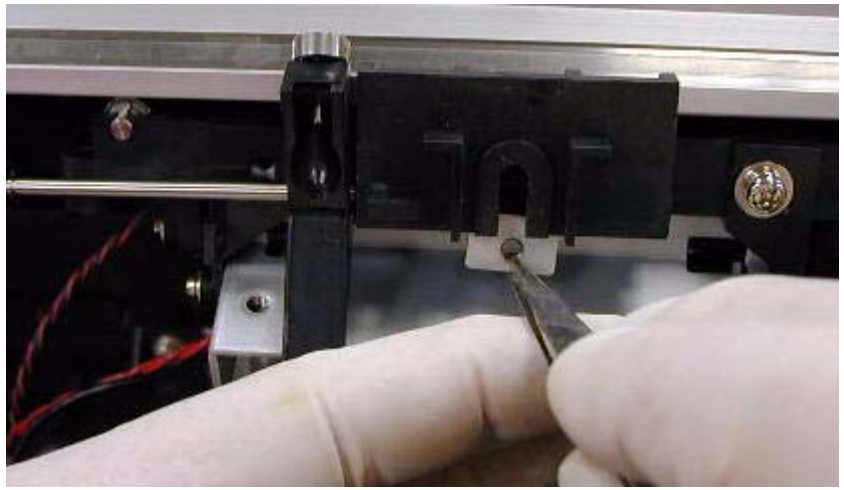
27.1 .Ensure that the new ***Carriage Assembly*** is disassembled to this level.

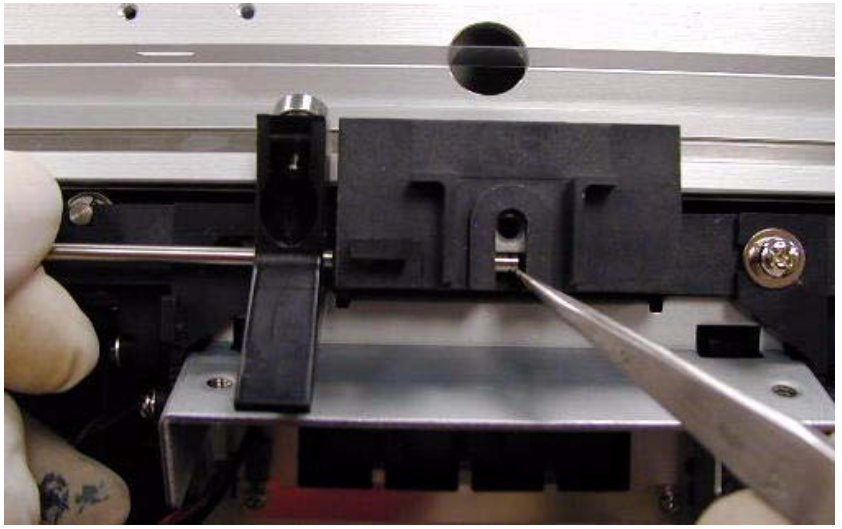


27.2 Install the left ***Bearing Assembly*** and ***Shaft,*** part of the way.

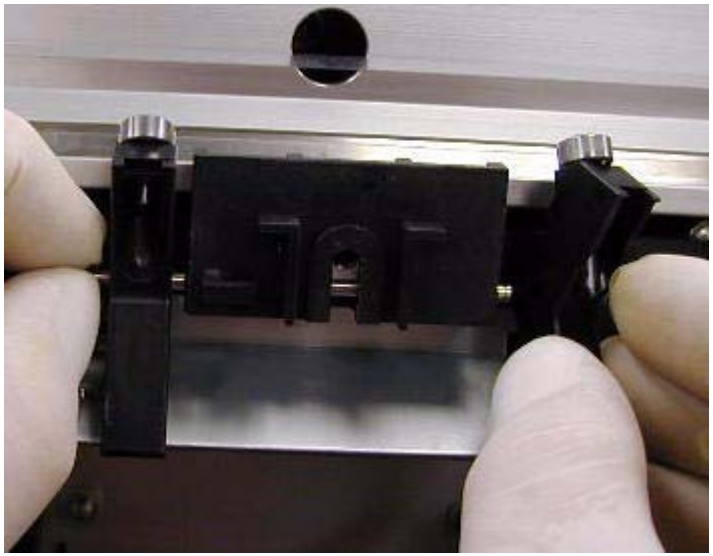


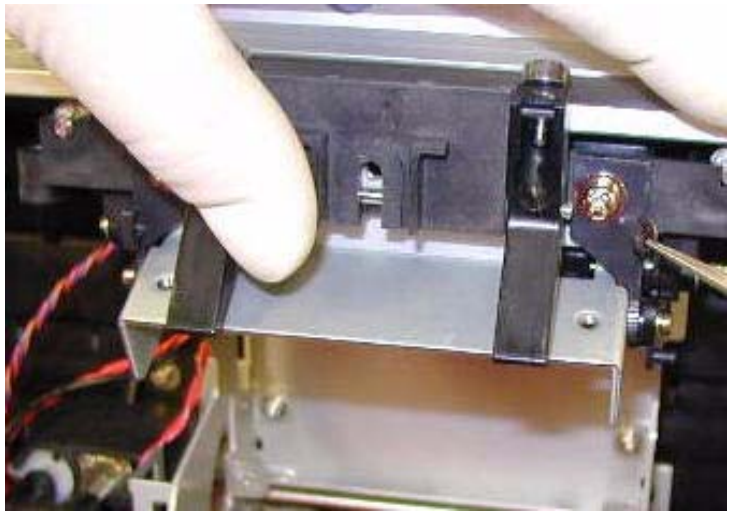
27.3 Install the threaded ***Base,*** and slide in the ***Shaft,*** until it supports the threaded ***Base***.



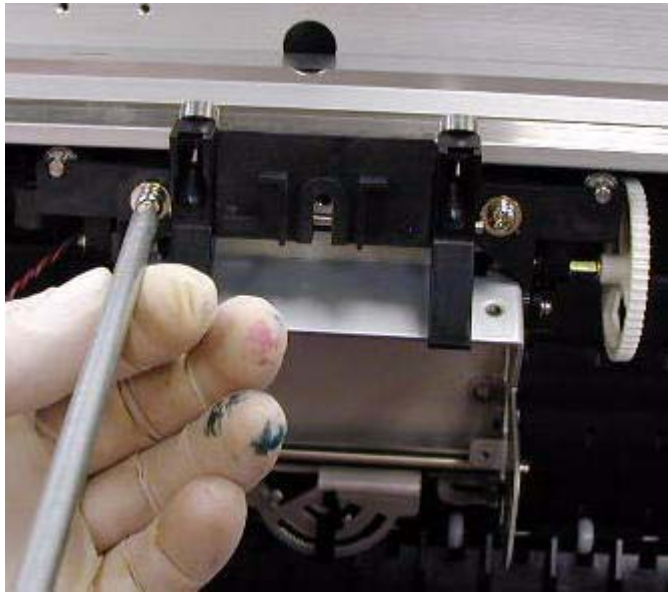


27.4 Install the right ***Bearing Assembly*** and ***E- Ring***



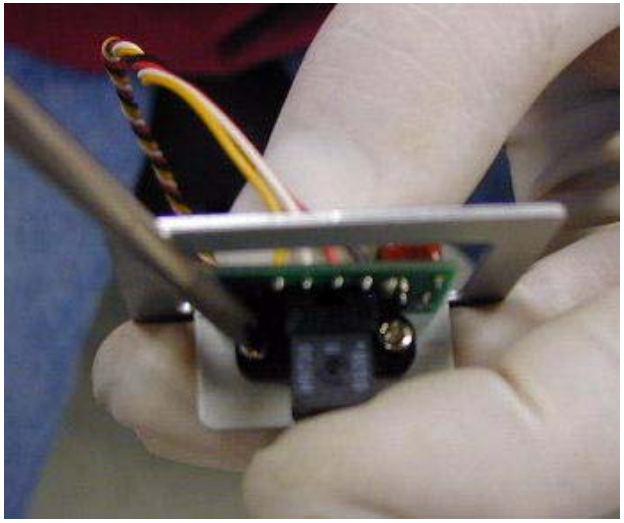


27.5 Install the left ***Screw***.

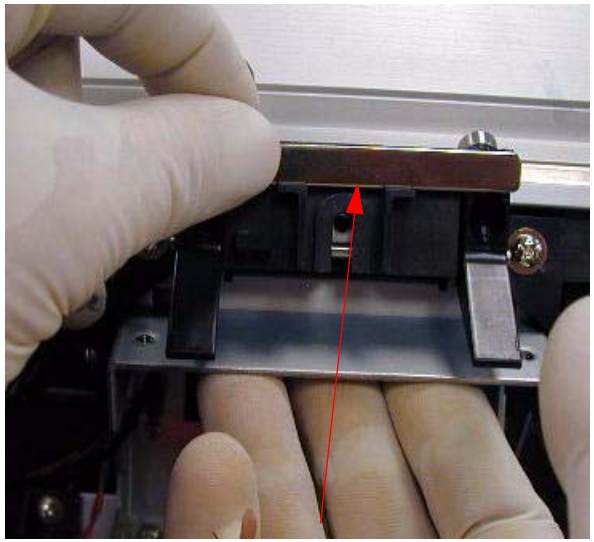


28. Install the ***Carriage Encoder.***

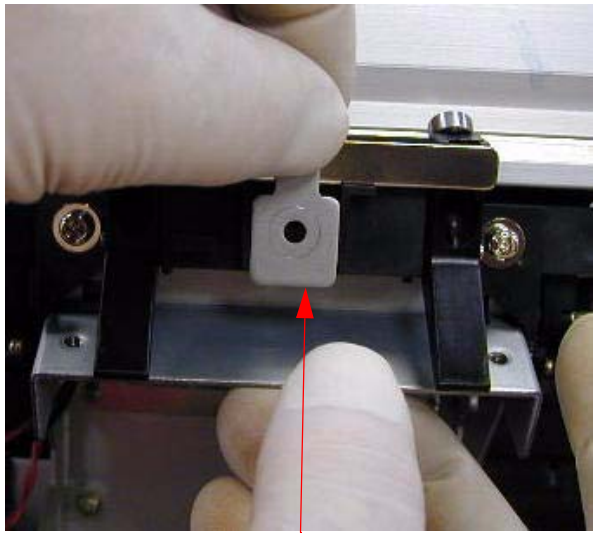
28.1 Loosen the ***Encoder Sensor*** so that the ***Sensor*** can be moved on it's ***Bracket***.



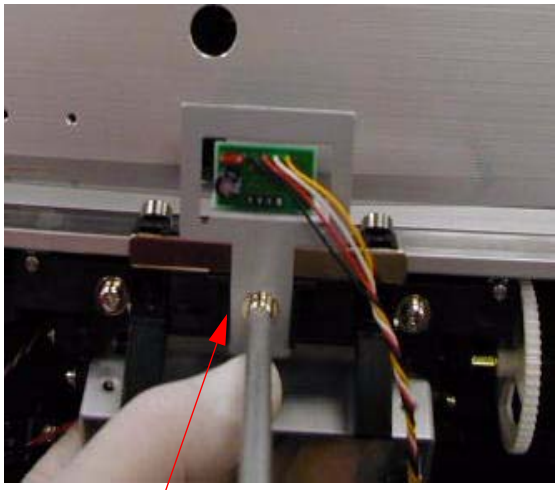
28.2 Install the ***Top Bearing Tension Bar***, ***Bracket***, ***Encoder***, and fasten loosely with 1 ***Screw***.



1. ***Tension Bar***

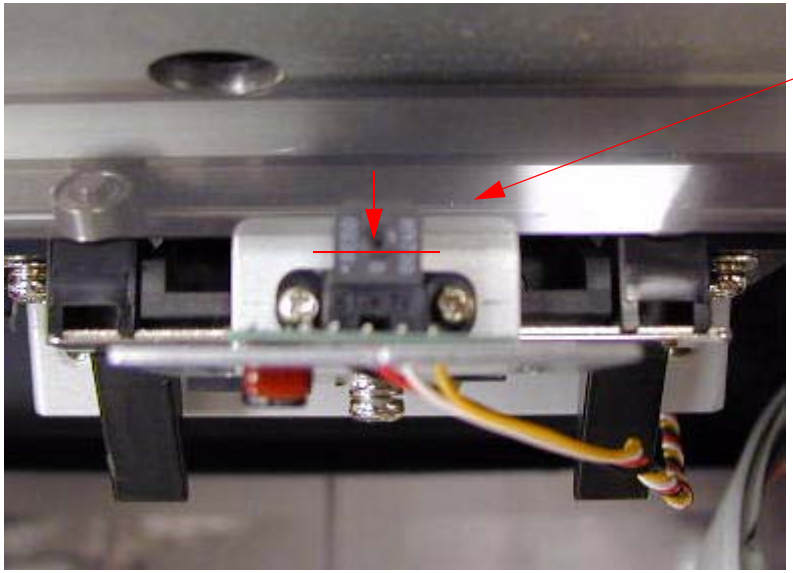


2. ***Bracket***

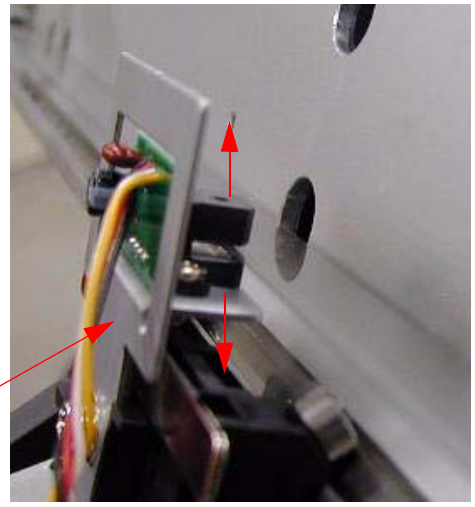


3. ***Encoder*** and ***Screw***

28.3 Position the ***Encoder*** so that the ***Strip*** is 3/4 of the way in to the ***Sensor***, and vertically centered.



3/4 of the way into the ***Sensor***, and tighten the 2 ***Screws***.

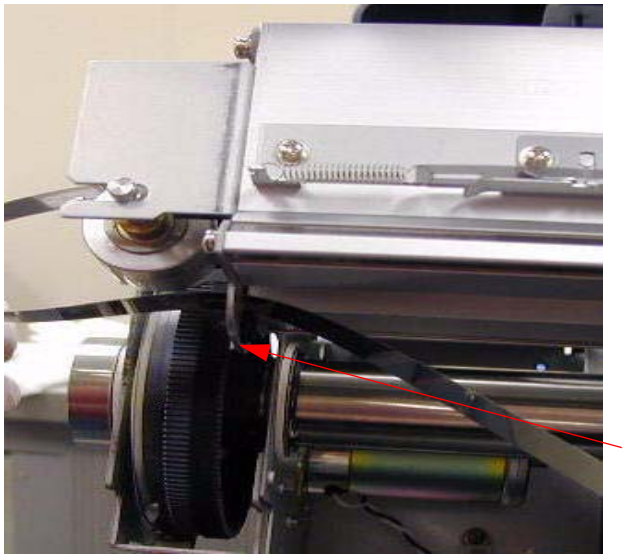


Centered so that the ***Strip*** does not touch to top or bottom of the ***Sensor***, and tighten 1 ***Screw***

28.4 Move the ***Carriage*** the entire length of the ***Carriage Rail*** and verify that the ***Sensor*** is not rubbing, and centered along the entire length of the ***Encoder Strip***.

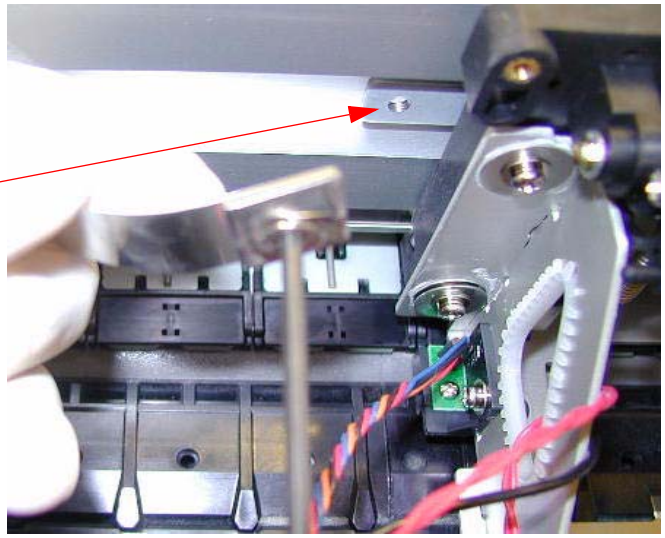
29. Attach the ***Carriage Belt*** to both sides of the ***Carriage***.

29.1 Route the ***Carriage Belt*** around the ***Belt Roller***, through the loop on the bottom of the ***Carriage Rail***, and attach to the left side of the ***Carriage***.

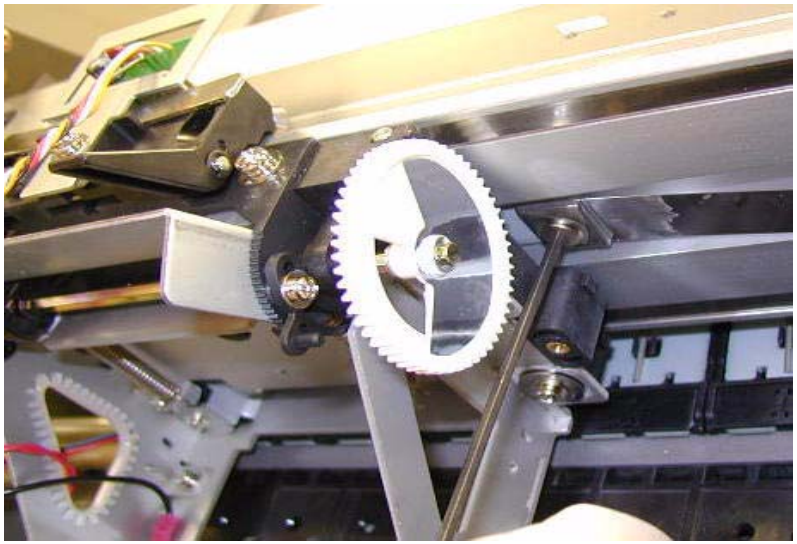


Screw and ***Belt*** go

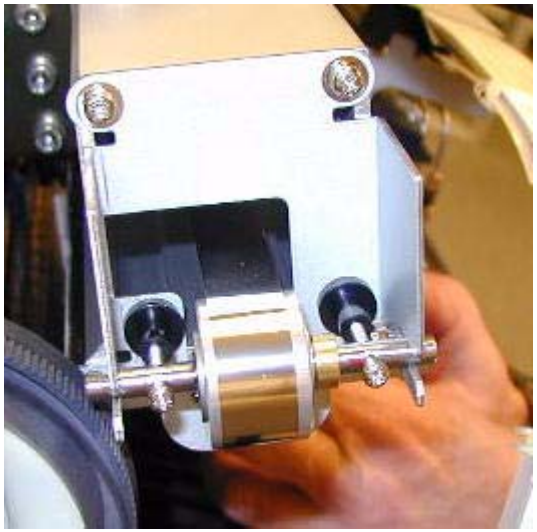
Around the ***Roller*** and through this loop.



29.2 Carefully move the right side of the ***Carriage Belt*** until it can be attached to the right side of the ***Carriage***.

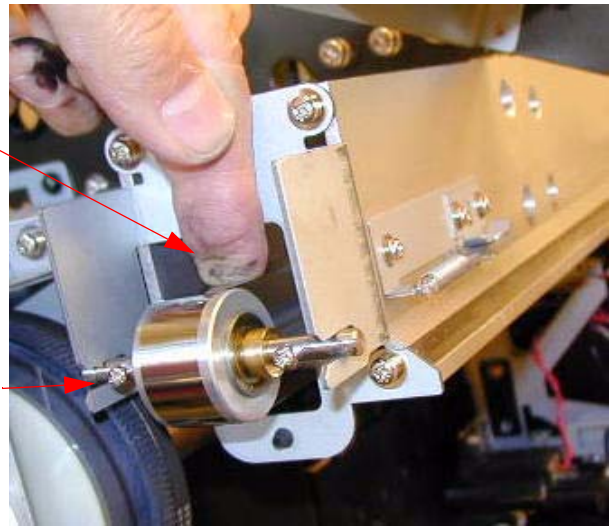


30. Tighten the ***Carriage Belt*** to the marks on the ***Screws*** made in step 19***(do not over tighten)***



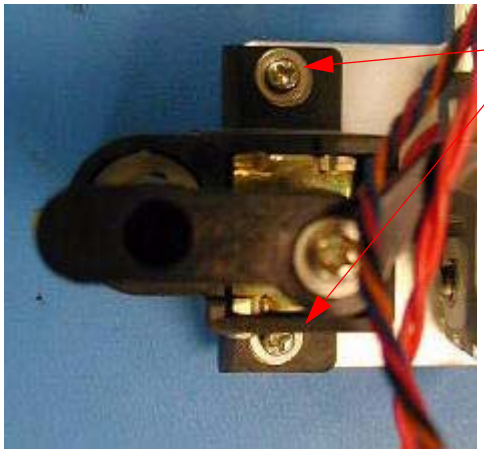
Press here, and verify that the ***Belt*** has about 1/8" deflection

It is very important that you move the Carriage Mechanism back and forth while observing the Belts position on the wheel. Adjust the two tension Screws until the Belt tracks with no drift (a little drift is acceptable).



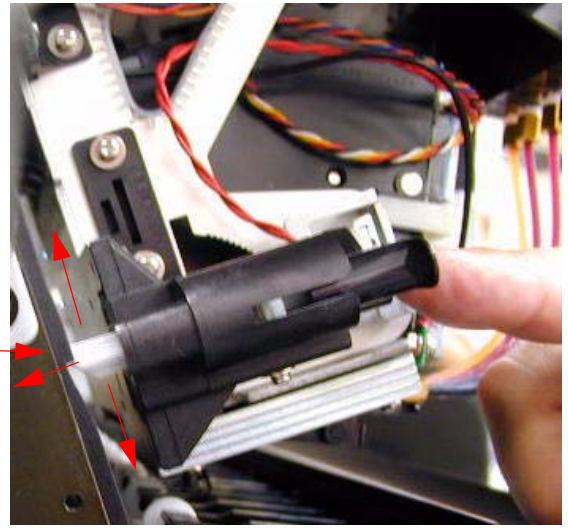
Tighten ***Screws*** to the marks made in Step 19.

31. Adjust the ***Cutter Blade's*** position, against the ***Cutter Guide*** (the thickness of a piece of paper.)



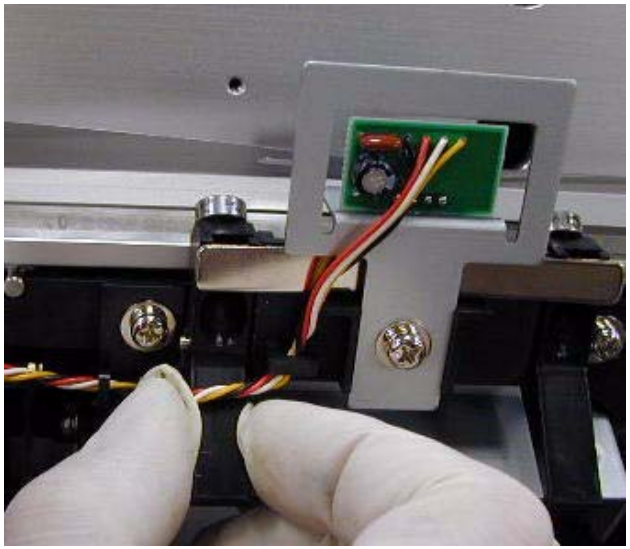
These ***Screws*** allow the ***Cutter's*** position to be moved vertically.

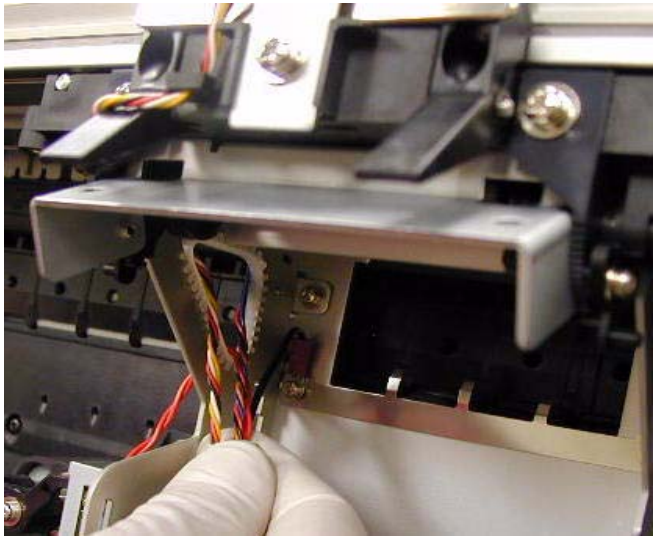
Verify that the ***Cutter Blade*** (when manually depressed) is close to, but not touching, the ***Cutter Guide***.



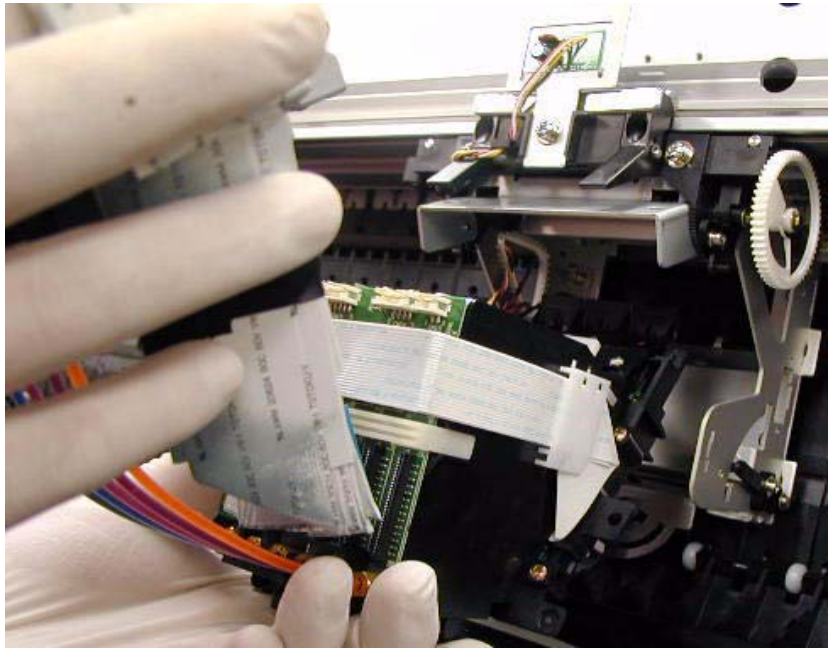
Verify the ***Cutter Blade*** / ***Cutter Guide*** position is good on both sides, and in the middle of the ***Mechanism***

32. Route the ***Sensor***/***Solenoid*** wires on the ***Carriage Mechanism***.

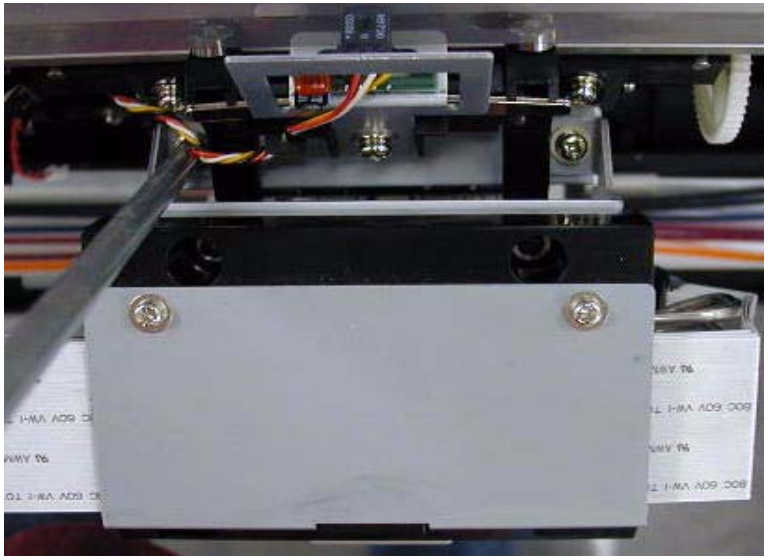




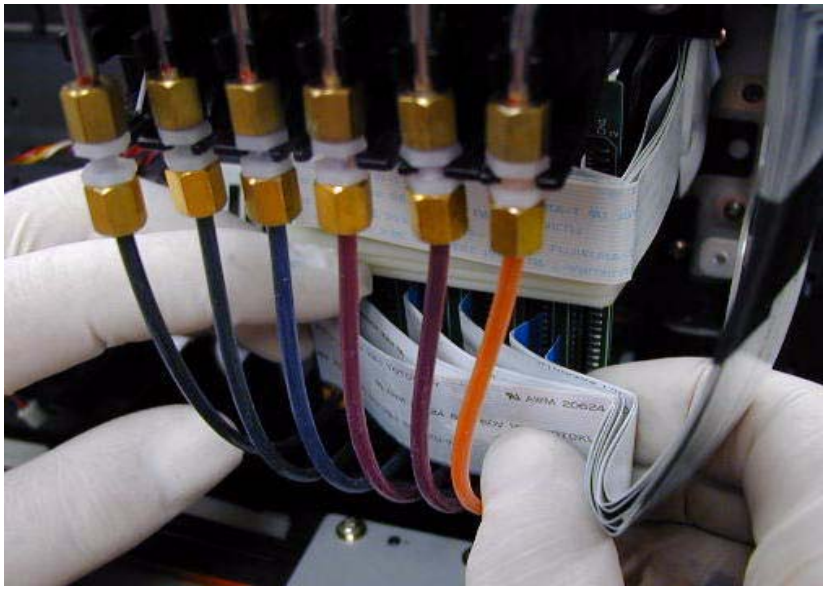
33. Place the ***Print Head*** in the ***Carriage Mechanism***.



34. Position and attach the ***Tube*** / ***Bracket Assembly*** with 2 ***Screws***.



35. Verify that the ***Flexible Print Head Cables*** are seated properly.

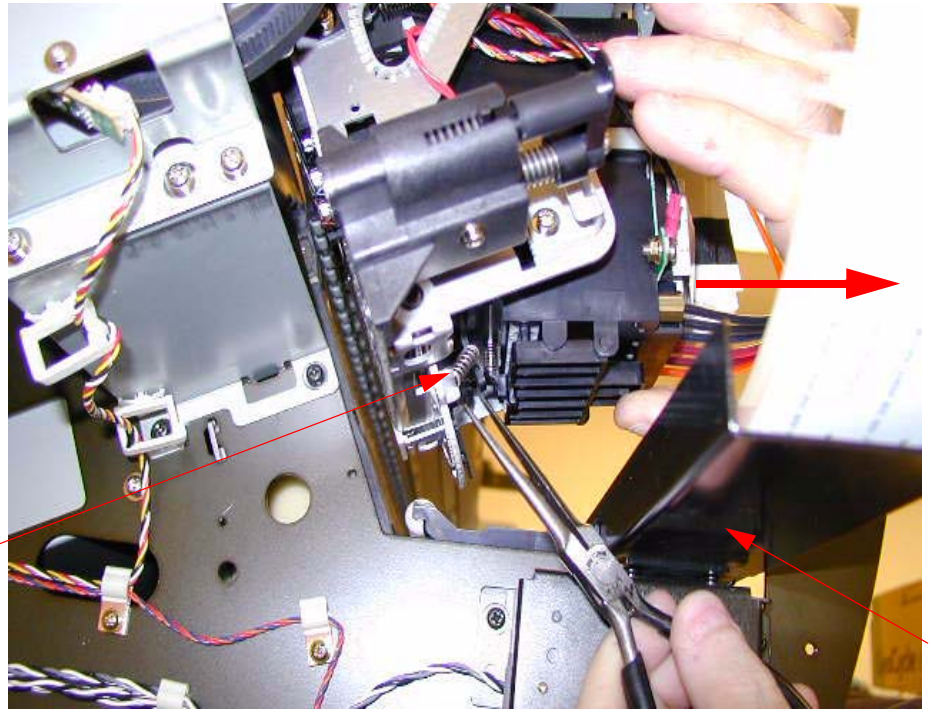


36. Replace the ***Print Head Alignment Tension Spring***.

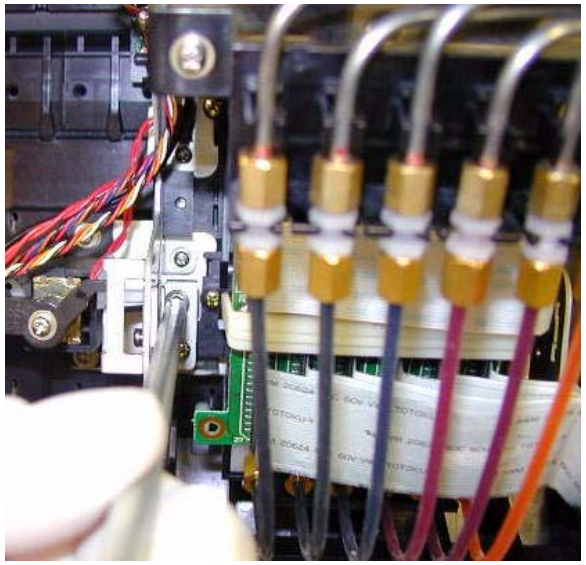
36.1 Pivot the ***Print Head*** away from the ***Carriage Mechanism***.

36.2 Place the ***Spring*** in position with a pair of needle nose pliers.

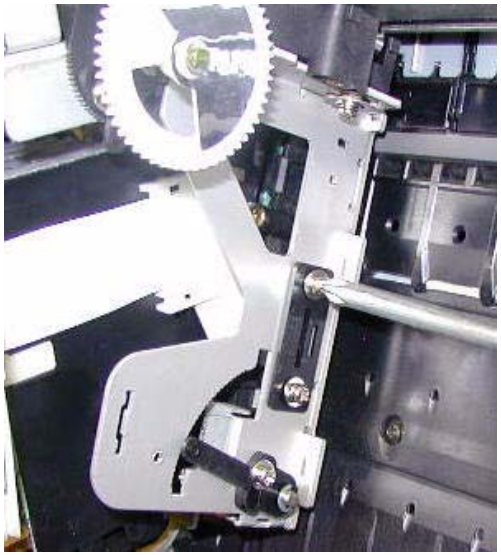
36.3 Pivot the ***Print Head*** back into position, compressing the ***Spring***.



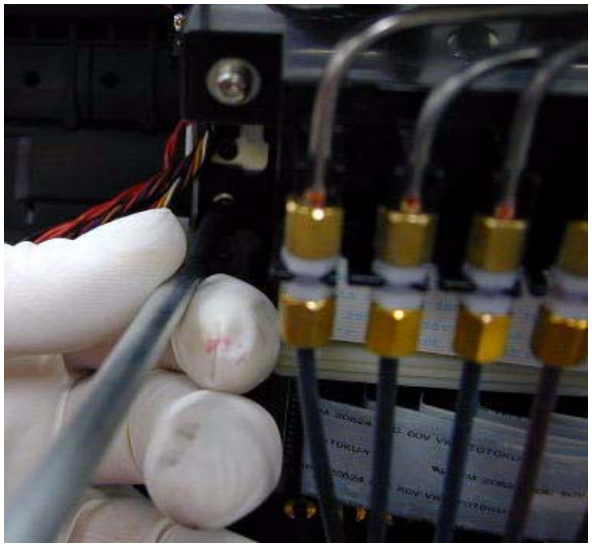
37. Install the ***Print Head Fastening Brackets***, tighten and back off 1/4 turn.



Install the left and right ***Silver Spring Brackets*** (Do not fully tighten).

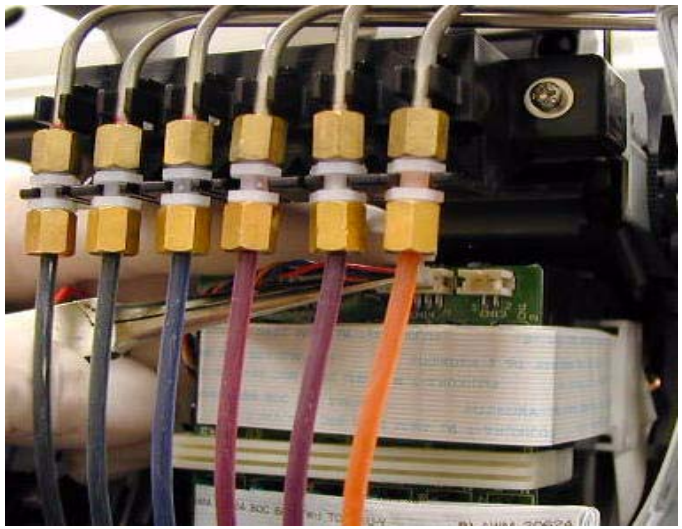


Install the left and right ***Black Plastic Brackets*** (Do not fully tighten).



Screw the ***Print Head*** to the ***Black Plastic Brackets*** (Do not fully tighten).

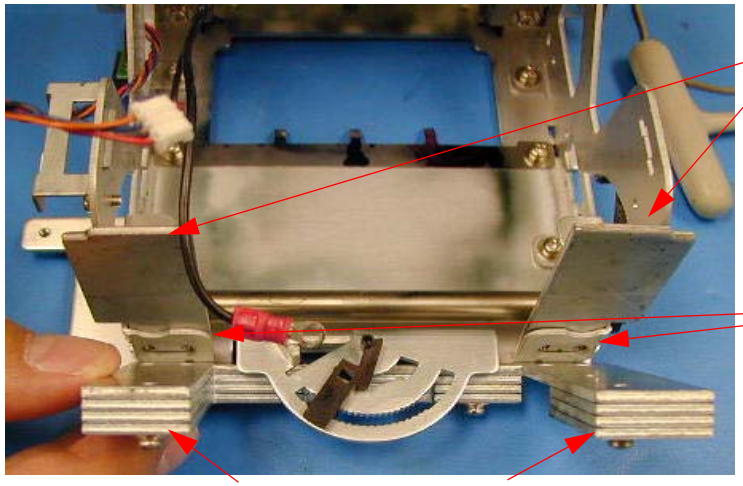
38. Route and install the ***Sensor/Solenoid Cables***, and the ***Ground Wire***.

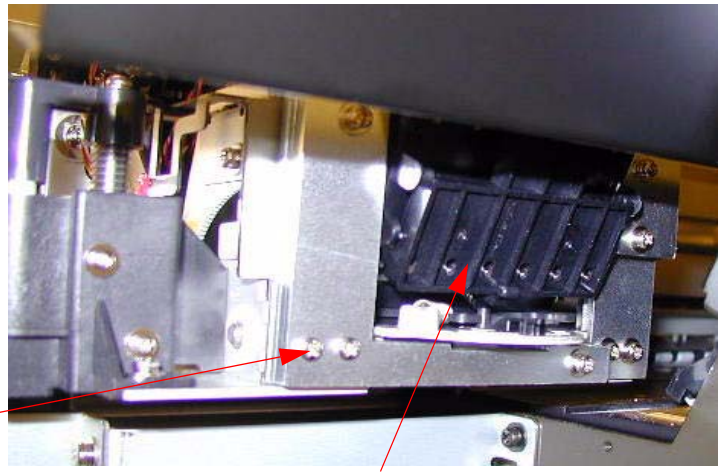


39. Install the ***Print Head Weights***.

39.1 Move the ***Print Head*** to the far left side of the ***Carriage Rail***.

39.2 Install the left side of the ***Weights*** first, and leave loose until the right side ***Weights*** are installed.





View from the floor, looking up.

40. Perform cleaning cycles and nozzle checks, until the ***Print Head's*** nozzles recover.

41. Perform the **A13 Slant** adjustment.

41.1 Enter **Self Diagnostic Mode.**

41.1.1 Turn on the ***Printer*** while depressing **Paper Feed +** + ***Paper Feed -*** + **Enter**.

41.2 Press the **SelecType** button to display **Check: Adjustment.**

41.3 Press the **Enter** button time to display **Adj: Check Skew.**

41.4 Press the **SelecType** button to display **Adj: A13 Slant.**

41.5 Press the **Enter** button to execute.

A13 Slant Adjustment Lever
(Shown without ***Print Head***)

41.5.1 Move the ***A13 Slant Adjustment Lever*** to the left to move the Magenta lines closer to the leading edge of the paper.

41.5.2 Move the ***A13 Slant Adjustment Lever*** to the right to move the Magenta lines farther from the leading edge of the paper.

41.6 Adjust the ***A13 Slant Adjustment Lever*** until the magenta and black lines are linear.

42. Tighten the ***Print Head Fasteners***.

It is important to tighten the Print Head Fasteners in the exact order listed below or the A13 alignment will be altered. Do not over tighten.

42.1 Tighten the 2 ***Screws*** that fasten the 2 ***Spring Tension Brackets***.

42.2 Tighten the 4 ***Screws*** that fasten the 2 ***Print Head Mounts.***

42.3 Tighten the 2 ***Silver Plastic Screws*** that fasten the ***Print Head*** to the ***Print Head Mounts***.

43. Perform the PF Slant Adjustment using the **Bi d, V1, 240,K** alignment pattern for reference.

43.1 Enter **Self Diagnostic Mode.**

43.1.1 Turn on the ***Printer*** while depressing **Paper Feed +** + ***Paper Feed -*** + **Enter**.

43.2 Press the **SelecType** button to display **Check: Adjustment.**

43.3 Press the **Enter** button time to display **Adj: Check Skew.**

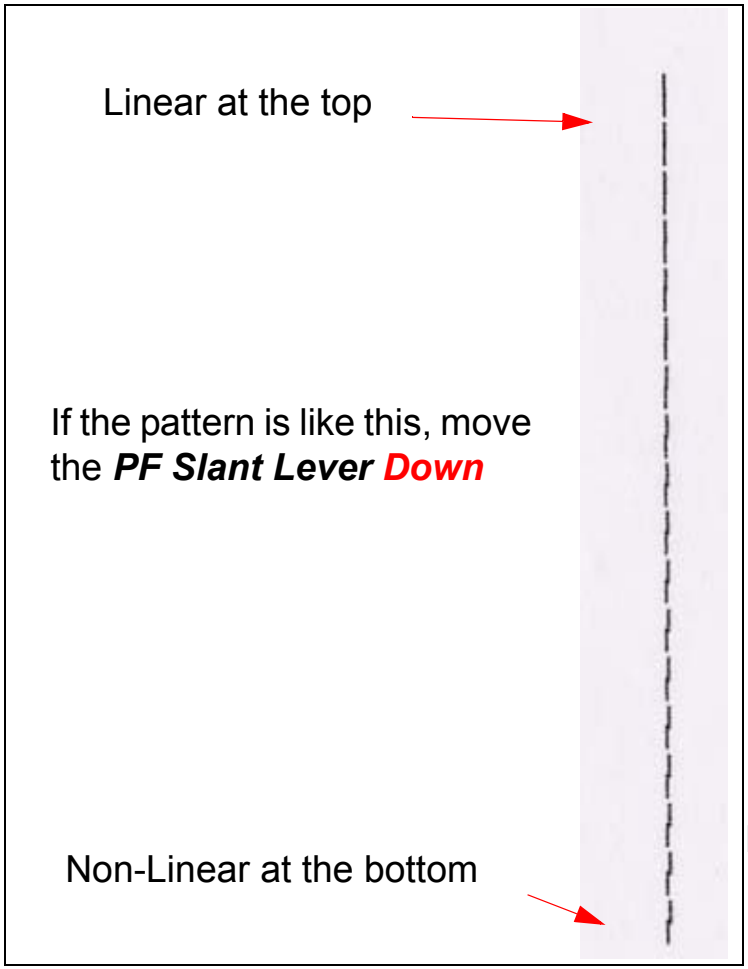
43.4 Press the **SelecType** button to display **Adj: Bi-d.**

43.5 Press the **Enter** button to display **[Enter] Adjust Print**

43.6 Press the **Pause** button to display **Bi-d V1, 240, K: nn** (nn = current Bi-d value)

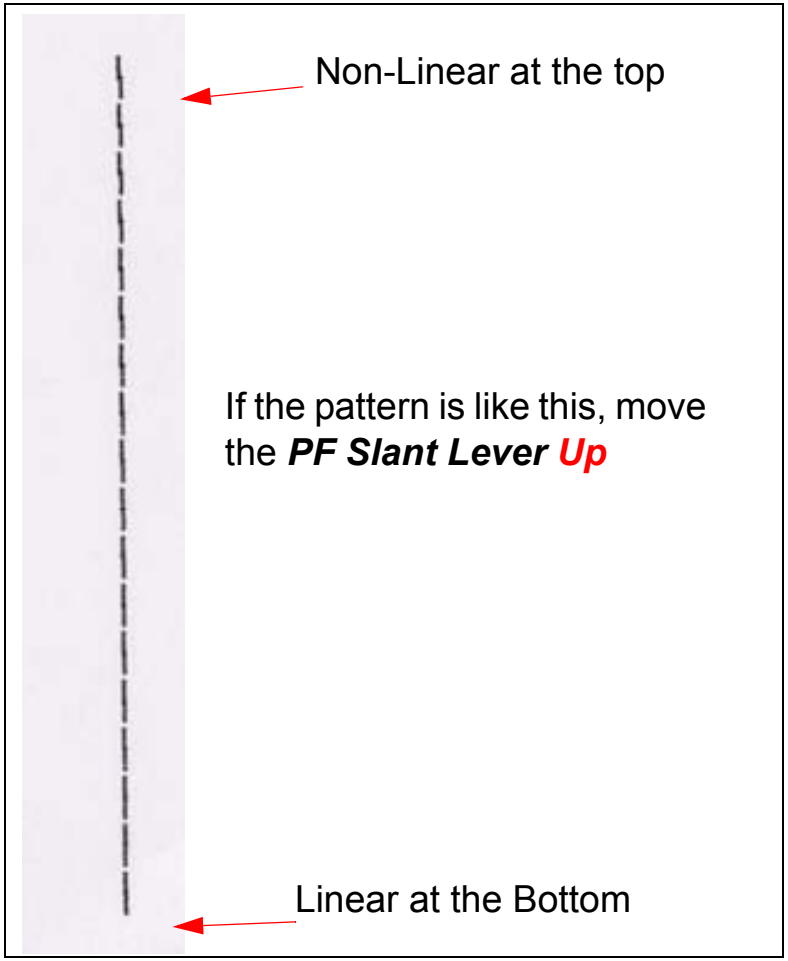
43.7 Press the **+** button to increase the Bi-d value by 1 (this forces the ***Printer*** to print the **Bi-d V1, 240, K** alignment pattern. ***(To re-print decrease the Bi-d value by 1, etc.)***

43.8 Compare one of the center Bi-d patterns against the images below, and adjust until the lines are as linear as possible.



PF Slant Lever

Paper Feed Direction.



43.9 Repeat steps 43.7 and 43.8 until the lines are as linear as possible. It might be necessary to change the Bi-d adjustment variable and the A13 adjustment to achieve the best results.

44. Perform the PF Slant Adjustment using the **Bi d, V1, 240,K** alignment pattern for reference.

44.1 Enter **Self Diagnostic Mode.**

44.1.1 Turn on the ***Printer*** while depressing **Paper Feed +** + ***Paper Feed -*** + **Enter**.

44.2 Press the **SelecType** button to display **Check: Adjustment.**

44.3 Press the **Enter** button time to display **Adj: Check Skew.**

44.4 Press the **SelecType** button to display **Adj: Top + Bottom.**

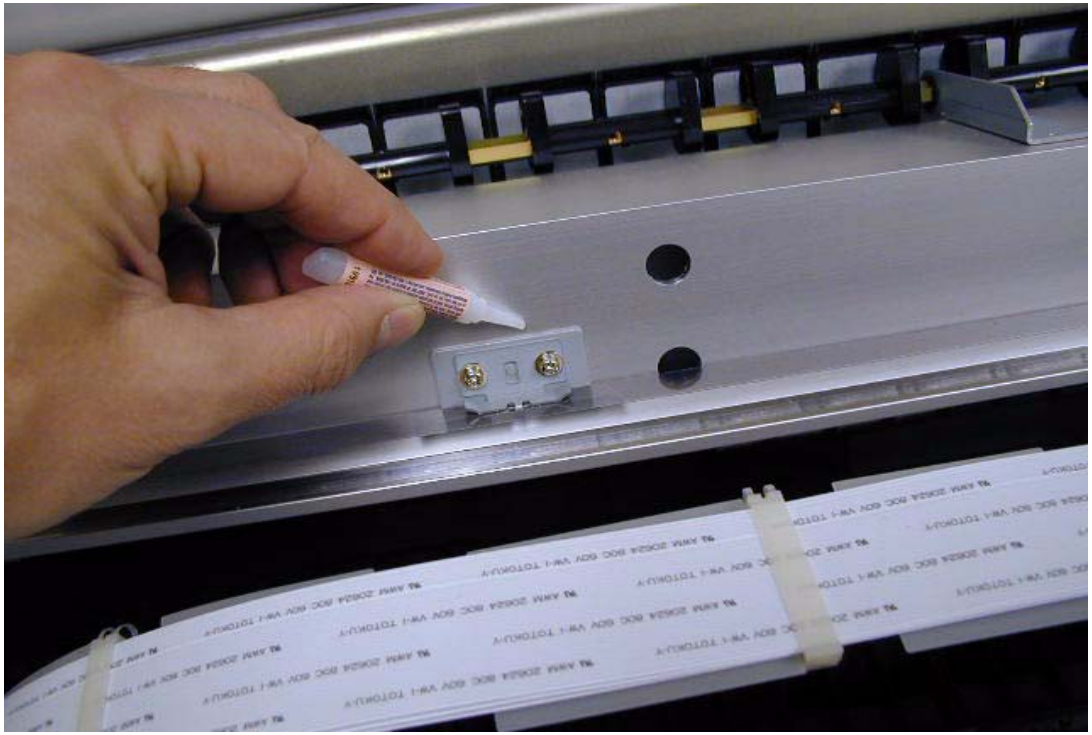
44.5 Press the **Enter** button to print the adjustment pattern.

44.6 Measure the printed pattern and input the data when prompted by the ***Printer***.

45. Check all electronic and mechanical alignments.

Carriage Timing Strip Replacement

Prior to removing the Carriage Timing Strip Bracket Screws, place a bead of glue along the top of each of the bottom Brackets, to fasten the Bracket to the Carriage Rail.This will maintain the current Timing Strip / Encoder Sensor alignment.



Communication Errors PC

Description:

Status Monitor 3 reports a **Communication Error**.

Reason:

The ***Printer*** and the **Driver** / ***Computer*** are not communicating.

Troubleshooting process:

1. Check the ***Printer's Control Panel*** and verify.
   - 1.1 The ***Printer*** is turned on.
   - 1.2 The ***Printer*** is **Ready** (If the ***Printer*** displays **Ink Low** or a **Maintenance Error**, the ***Printer*** is still ready).
     - 1.2.1 The ***Printer*** is not **Paused**.
     - 1.2.2 No ***Error Lights*** or messages on the ***LCD***.
2. Verify that the ***Printer*** is not connected ***USB*** and ***Parallel*** at the same time. The two connections will conflict.
3. Check the **Printer Driver**.
   - 3.1 Is the ***Printer*** set as the **Default Printer**.
   - 3.1 Is the proper ***Port*** assigned to the ***Printer***.
   - 3.2 Does the ***Port*** see the ***Printer***.
     - 3.2.1 Does not apply to ***Parallel Ports***.
   - 3.3 Does the **Driver** match the ***Printer (Ink Type)***.
     - 3.3.1 Verify the ink type of the ***Printer*** by checking the part number of an ***Ink Cartridge***.

4. Check the ***Printer's*** settings.
   - 4.1 Is the ***Printer's*** proper ***Interface*** is enabled.
     - 4.1.2 If the **Interface** is set to **Auto**, try setting the ***Port*** to the connected type.
   - 4.2 Set the ***Printer*** name to **Stylus Pro 10600DYE**, **Stylus Pro 10600CF**, or **Stylus Pro 10600UC**.
     - 4.2.1 Move the ***Paper Release Lever*** to the released position.
     - 4.2.2 Turn on the ***Printer*** with the **SelecType** and **Paper Feed +** buttons depressed.
       - 4.2.2.1 Verify name displayed on ***LCD*** is the **Stylus Pro 10600DYE**, **Stylus Pro 10600CF**, or **Stylus Pro 10600UC** (the name will be only displayed for a short time).
       - 4.2.2.2 Turn off the ***Printer***, and repeat steps 2 and 3 until **Stylus Pro 10600DYE**, **Stylus Pro 10600CF**, or **Stylus Pro 10600UC** is displayed.

5. Send a test print from a simple application, such as **Wordpad**.

6. Verify the ***I/F Cable*** is working properly.
   - 6.1 Reseat ***I/F Cable*** on both ends.
   - 6.2 Verify that the ***I/F Cable*** is not excessively long (over 10 -15 feet) (Spec. is 10 feet).
   - 6.3 Remove any ***HUBS*** or ***Switch Boxes*** from the ***Cabling***.
   - 6.4 Verify that the ***I/F Cable*** is not the problem.
     - 6.4.1 Use another ***Cable*** or test the ***Cable*** with another ***Device***.
   - 6.5 If the Interface is Ethernet, verify that the ***Cable*** is:
     - 6.5.1 A "straight through" ***Cable*** for most connections
     - 6.5.2 A '"crossover" ***Cable*** for direct ***Computer*** to ***Printer*** connections.

7. If the ***Printer*** is connected by a ***Parallel Port***, check the ***Port*** driver in **Device Manager**.
   - 7.1 If an **Epson Port Driver** is not installed:
     - 7.1.1 Delete the **Port Driver**

7.1.2 Delete the ***Printer Driver***, and reinstall.

8. Delete the **Driver** and reinstall.

9. Verify that the ***Port*** on the ***Computer*** is not the problem.

   9.1 Use another device to test the ***Port*** on the ***Computer***, or use another ***Computer***.

Other Considerations

- Custom Dongles attached to RIP Servers could cause a problem.
- Epson ***Large Format Printers*** use USB 2.0. ***Computer Ports*** that use USB 1.0, may cause a problem.
- Status Monitor 3 can report an error on a Windows 2000 system, that does not exsist. Turn off the **Error Monitoring** (**Printer Driver: Utility: Speed & Progress: Monitoring Preferences** Uncheck the **Error** box).

Driver Board Replacement

Caution: Do not remove any cable, card, or component without first unplugging the Printer from the AC power source.

Caution: Failure to up load and down load parameters requires that all electronic adjustments be performed, the Head Rank for both print heads be entered, and the Waste Ink Pads be replaced.

Caution: Failure to insert foil cables correctly (fully and straight) will result in component damage.

Verify that the Board has the following part # stamped on it:

2077149

1. Up load parameters to the “Parameter” flash card
   - 1.1 Unplug ***Printer.***
   - 1.2 Insert the parameter flash card (Part # 1070167SP10K).
   - 1.3 Plug in ***Printer.***
   - 1.4 Turn on the ***Printer*** and ***do not press any key***. The up load will be performed.
2. Remove the old ***Board.***
3. Install the new ***Board.***

Caution: be careful not to damage any components on the bottom of the board. The “mounting areas” that the board attaches too can scrape off small components.

4. Install the vertically mounted ***Sub-Board Assembly***

5. Erase the exsisting firmware on the ***Driver Board***.
   - 5.1 Insert the “All Erase” flash card (Part # 1070167ER10K)
   - 5.2 Plug in ***Printer.***
   - 5.3 Turn on the ***Printer*** and ***do not press any key***. The erase function will be performed.
   - 5.1 Unplug ***Printer.***
   - 5.2 Remove the “All Erase” flash card

6. Install firmware to replace the erased firmware using the firmware flash card
   - 6.3 Insert the “Firmware” flash card (Part # 1070167FM16K)
   - 6.4 Plug in ***Printer.***
   - 6.5 Turn on the ***Printer*** and ***do not press any key***. The firmware up load function will be performed.
   - 6.1 Unplug ***Printer.***
   - 6.2 Remove the “Firmware” flash card

7. Download latest firmware.
   - 7.1 Connect the ***Printer*** to your PC with a parallel cable.
   - 7.2 Prepare your computer to send the correct firmware file to the Printer.
     - 7.2.1 Use the DOS **copy** command or **WinPRN.exe.**
       - 7.2.1.1 See the DOS Copy for Firmware section of the Field Repair Guide.
       - 7.2.1.2 See the WinPrn Utility Section of the Field Repair Guide.
   - 7.3 Turn on Printer while depressing the **(Paper Source)** + **(Cut Eject)** + **(Cleaning)** buttons.
   - 7.4 Send the firmware to the ***Printer.***

8. Initialize the RTC (Real Time Clock).

8.1 Enter **Maintenance Mode 2.**

8.2 Turn on Printer while depressing **(Paper source)** + **(Cut/ Eject)** + **(Paper Feed -)**.

8.3 Press **SelecType** 2 times to display the **Clear Counters Menu.**

8.4 Press **Paper Source** one time to display **RTCINIT = YY / MM / DD/ HH.**

8.5 Enter the current Year, Month, Day, and Hour.

8.5.1 The **Cleaning** button shifts between year, month, day and hour.

8.5.2 The **Paper feed +** or **Paper feed -** buttons change the values.

9. Download previously uploaded parameters.

9.1 Unplug ***Printer.***

9.2 Insert the “Parameter” flash card (Part # 1070167SP10K).

9.3 Plug in the ***Printer***.

9.4 Turn on the ***Printer*** and ***press any key.*** The download will be performed.

9.1 Unplug ***Printer.***

9.2 Remove the “Parameter” flash card

10. Load Paper.

10.1 If the paper does not load properly:

10.1.1 Adjust the ***Paper Sensor Trim Potentiometers.***

10.1.1.1 Turn ***VR1 - VR6*** clockwise 1/4 turn and load the paper again.

10.1.1.2 Repeat if necessary.

11. Print the adjustment patterns.

11.1 Enter **Self Diagnostic Mode.**

11.1.1 Turn on the ***Printer*** while depressing **Paper Feed +** + ***Paper Feed -*** + **Enter**.

11.2 Press the **SelecType** button to display **Check: Adjustment.**

11.3 Press the **Enter** button time to display **Adj: Check Skew.**

11.4 Press the **SelecType** button to display **Adj: Test Print.**

11.5 Press the **Enter** button to execute.

12. Verify that all alignment patterns are correct.

13. Perform all necessary electronic alignments.

14. Verify that the Head Rank Information is correct.

Epson Pro Graphics 24” Test Print Directions

The Purpose of the Test Print File:

The ***24” Test Print File*** is designed to provide a “Standard” test print to evaluate the operation of an ***Epson Printer*** in relation to it’s expected performance.

About the Test Print File:

1. The ***Test Print*** file was created in **Quark Xpress 4.11r0** on a PC. All **Quark** elements are RGB. All Image files are RGB Tiff at 100%. No files were scaled or rotated. The file was distilled with **Acrobat 5.05** to create the final PDF file.

2. This ***Test Print*** is not intended for use with CMYK PostScript workflows: ***EPSON Fiery RIPS*** or ***3rd Party RIPS***. Use of anything other than the standard **EPSON Driver** will yield undetermined results.

Before Printing the Test Print File:

1. Verify that **Acrobat Reader 5.0** or above is installed on the Computer.
   1.1 **Acrobat Reader 5.0** is available free from **WWW.Adobe.com**.

2. Verify that the latest **Printer Driver** is installed.
   2.1 Please check the Epson Web site for the current driver specific to your model and Operating System.
      2.1.1 WWW.Epson.com

3. Verify that all the ***Printer’s Nozzles*** are performing correctly.
   3.1 Run a **Nozzle Check** test print from the **Utility** Tab of the **Printer Driver**.

3.2 Inspect the **Nozzle Check Test Print**.

3.2.1 Verify that each ***Nozzle*** is firing.

3.2.1.1 Pay special attention to the ***Yellow Nozzles*** (they are hard to see, but will make a difference in the quality of the test print).

3.2.2 Verify that each ***Nozzle*** is firing straight (not deflected)

3.2.2.1 Using a magnifier to compare the spacings of each ***Nozzle***, to the spacing of the others.

3.2.3 If there are missing or deflected ***Nozzles***, perform a cleaning cycle.

3.3 Repeat steps 3.1 and 3.2 until the **Nozzle Check Pattern** is perfect.

If submitting prints to EPSON for evaluation, please include the final nozzle check pattern.

4. Verify that the ***Printers Electronic Adjustments*** are correct.

4.1 Perform the **Print Head Alignment** function located on the **Utility** Tab of the **Printer Driver**.

If submitting prints to EPSON for evaluation, please include a print out of the final adjustment patterns.

Printing the Test Print File

The Test Print file requires Acrobat Reader 5.0 or later. The Security Level is set on the Test Print File to allow opening, filling in the form, and printing only. Attempting to use an earlier version of Acrobat will result in an Error Message.

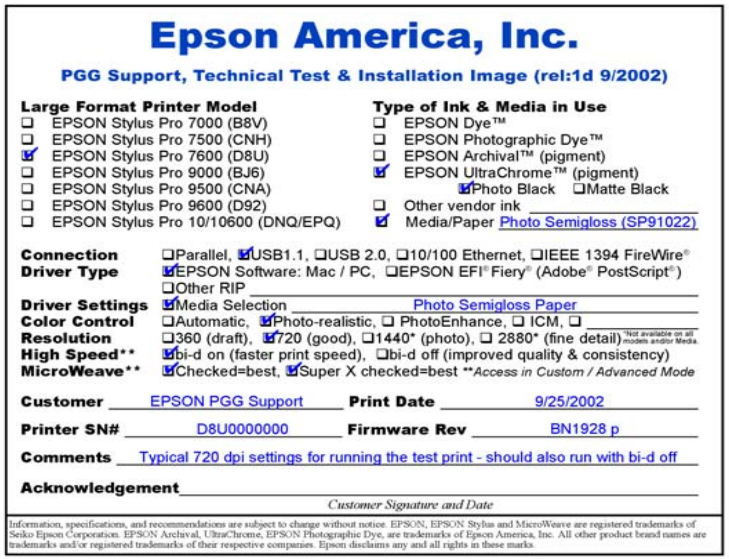
The screen shot examples taken from the STYLUS Pro 7600 may not be similar to your specific model and driver, however all the features described are available in all EPSON Drivers.

1. Fill out the **Form**.

1.1 Use the **Acrobat Magnifying Tool** to enlarge the **Form** section of the ***Test Print***.

1.2 Use the **Acrobat Hand Tool** to check boxes and select fields for entering text.

1.3 It is important that all the information requested by the form is filled out completely and accurately.



Epson America, Inc.

PGG Support, Technical Test & Installation Image (rel:1d 9/2002)

Large Format Printer Model
- ☐ EPSON Stylus Pro 7000 (B8V)
- ☐ EPSON Stylus Pro 7500 (CNH)
- ☑ EPSON Stylus Pro 7600 (D8U)
- ☐ EPSON Stylus Pro 9000 (BJ6)
- ☐ EPSON Stylus Pro 9500 (CNA)
- ☐ EPSON Stylus Pro 9600 (D92)
- ☐ EPSON Stylus Pro 10/10600 (DNQ/EPQ)

Type of Ink & Media in Use
- ☐ EPSON Dye™
- ☐ EPSON Photographic Dye™
- ☐ EPSON Archival™ (pigment)
- ☑ EPSON UltraChrome™ (pigment)
  - ☑ Photo Black ☐ Matte Black
- ☐ Other vendor ink _____
- ☑ Media/Paper Photo Semigloss (SP91022)

Connection ☐Parallel, ☑USB1.1, ☐USB 2.0, ☐10/100 Ethernet, ☐IEEE 1394 FireWire®
Driver Type ☑EPSON Software: Mac / PC, ☐EPSON EFI® Fiery® (Adobe® PostScript®)
☐Other RIP _____
Driver Settings ☑Media Selection Photo Semigloss Paper
Color Control ☐Automatic, ☑Photo-realistic, ☐ PhotoEnhance, ☐ ICM, ☐ _____
Resolution ☐360 (draft), ☑720 (good), ☐1440* (photo), ☐ 2880* (fine detail) *Not available on all models and/or Media
High Speed** ☑bi-d on (faster print speed), ☐bi-d off (improved quality & consistency)
MicroWeave** ☑Checked=best, ☑Super X checked=best **Access in Custom / Advanced Mode*

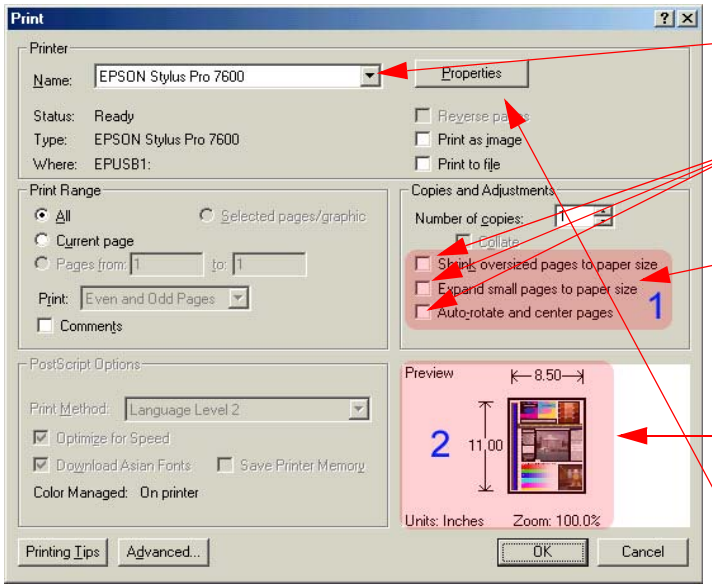
Customer EPSON PGG Support **Print Date** 9/25/2002
Printer SN# D8U0000000 **Firmware Rev** BN1928 p
Comments Typical 720 dpi settings for running the test print - should also run with bi-d off
Acknowledgement _____
Customer Signature and Date

Information, specifications, and recommendations are subject to change without notice. EPSON, EPSON Stylus and MicroWeave are registered trademarks of Seiko Epson Corporation. EPSON Archival, UltraChrome, EPSON Photographic Dye, are trademarks of Epson America, Inc. All other product brand names are trademarks and/or registered trademarks of their respective companies. Epson disclaims any and all rights in these marks.

Fill out this form.

2. Select the **Print** command from the **Acrobat File** menu.

2.1 Follow the directions below.



Select the correct Printer.

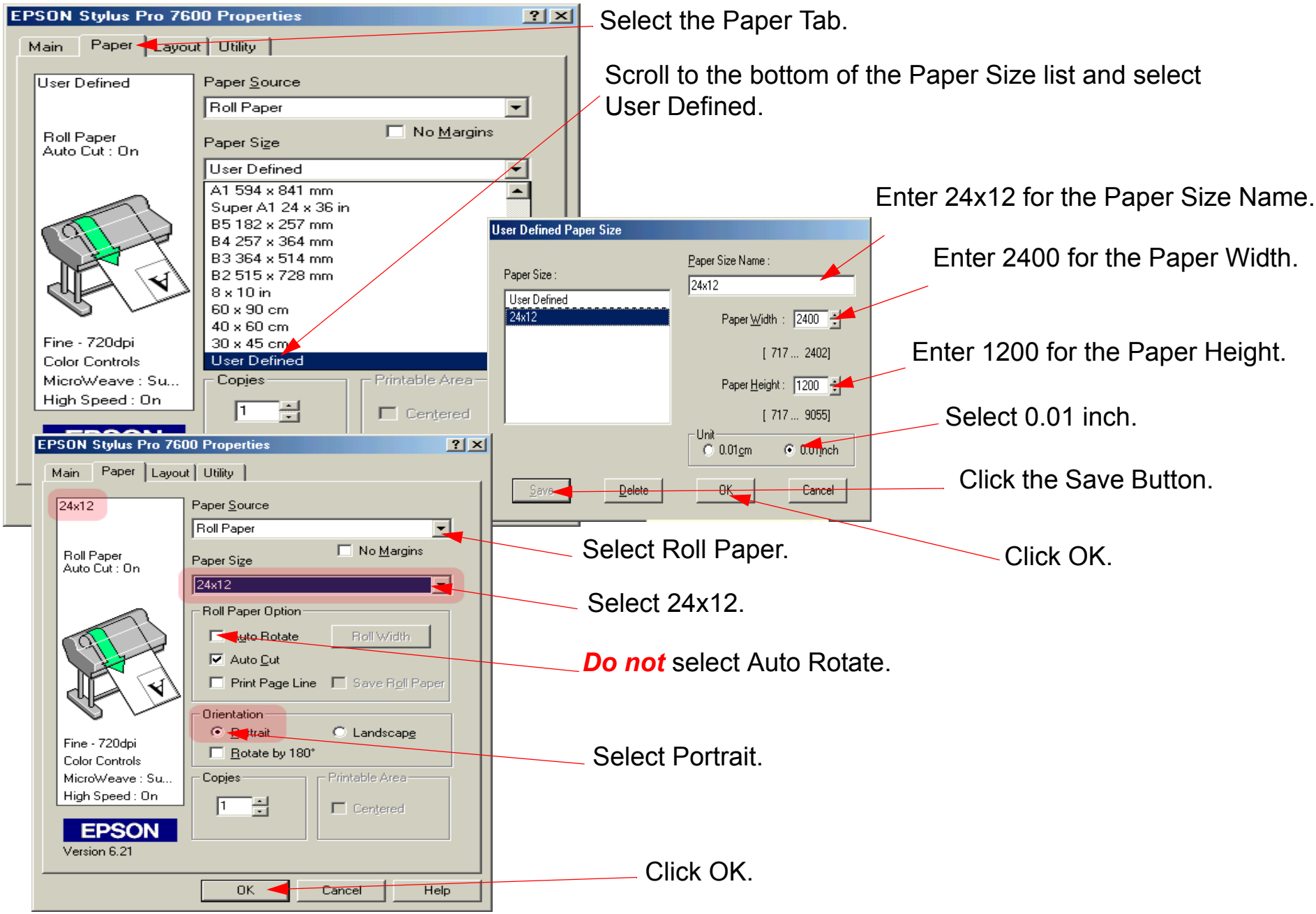
Verify that these boxes are ***not checked.***

If these boxes are checked the Horizontal and Vertical lined patterns of the test image will exhibit strong irregularities.

Acrobat will not display the final page size, designated by the EPSON driver as 24x12, in the Acrobat print dialog preview Window (area 2). This can be ignored. The file will print accurately.

Select Properties to access the Epson Printer Driver.

3. Adjust the **Printer Driver Paper Settings**.



Select the Paper Tab.

Scroll to the bottom of the Paper Size list and select User Defined.

Enter 24x12 for the Paper Size Name.

Enter 2400 for the Paper Width.

Enter 1200 for the Paper Height.

Select 0.01 inch.

Click the Save Button.

Click OK.

Select Roll Paper.

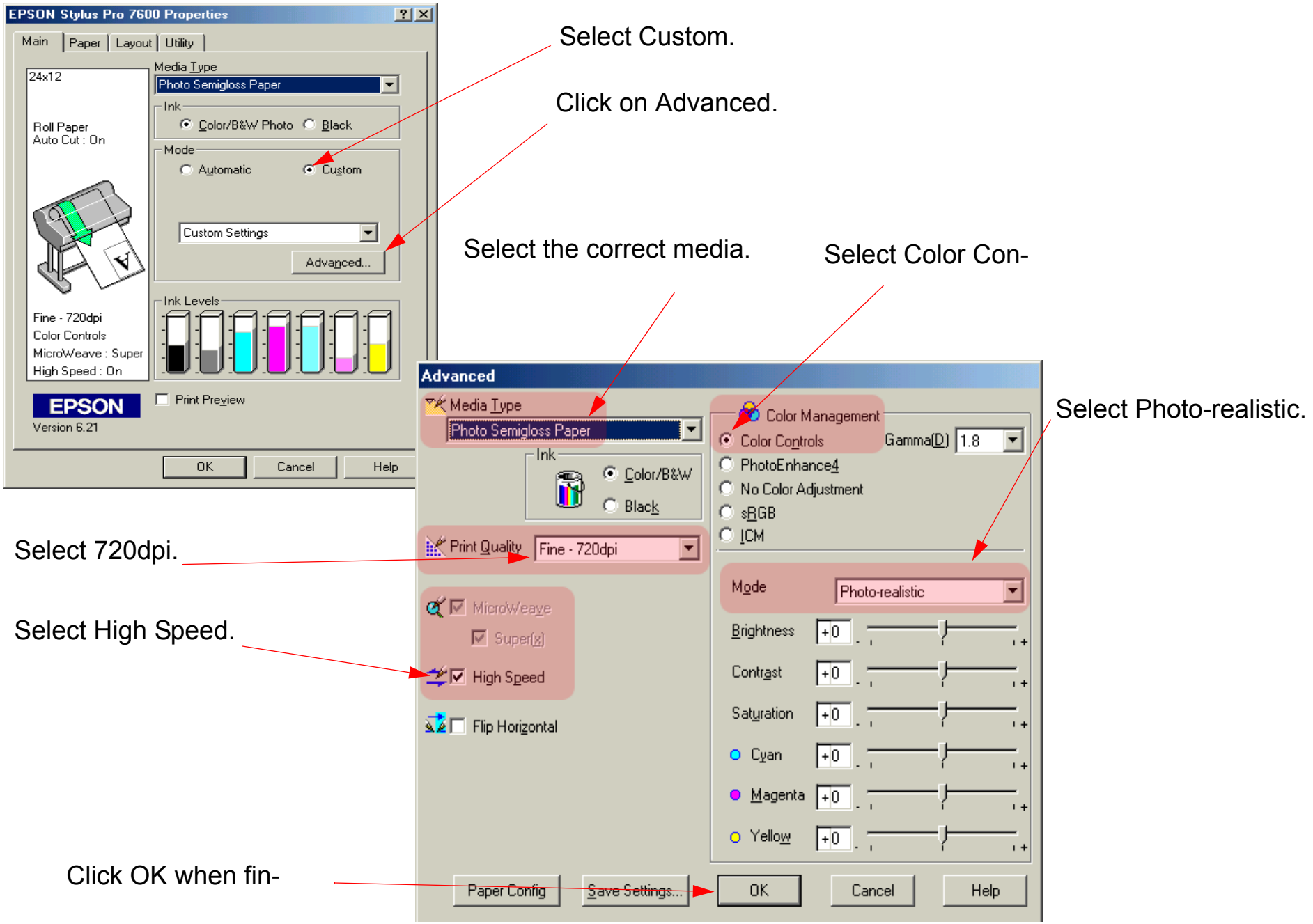
Select 24x12.

Do not select Auto Rotate.

Select Portrait.

Click OK.

4. Adjust the Printer Driver Quality Settings



Error Codes

00000100	Waste ink pads are full
00000101	CR motor life (Ink Tube Life)
00000102	Nozzle check error
00000103	RTC battery back up end
00000104	Auto nozzle check error 1. Perform offset adjustment. 2. Replace Dot Detector mechanism and perform offset adjustment.
00000105	Print Head life end
00000106	Cleaning unit life end
00010000	PF motor encoder check error
00010001	PF motor out of step
00010002	PF motor overcurrent
00010003	PF motor in-position time-out
00010004	CR motor encoder check error
00010005	CR motor out of step
00010006	CR motor overcurrent
00010007	CR motor in-position time-out
00010008	Servo interrupt watchdog time-out
00010009	System interrupt watchdog time-out 1. Reboot printer. 2. If reboot does not repair, exchange Driver Board.

00010010	PF motor PWM output faulty
00010011	Paper Jam Error 1. Exchange Driver Board
00010012	Cap Home Sensor Error
00010013	Providing System Home Sensor Error
00010014	Pressurization Error
00010015	Sub Tank Overfill (K)
00010016	Sub Tank Overfill (C)
00010017	Sub Tank Overfill (M)
00010018	Sub Tank Overfill (LC)
00010019	Sub Tank Overfill (LM)
00010020	CSIC reed/right error
00010021	Starter Cartridge error 1. Check Ink Cartridge connection. 2. Verify the Ink Cartridge is a starter cartridge. 3. Replace Ink Cartridge.
00010022	Ink type error (setting on printer body side)
00010023	RTC access error 1. Secure paper lever. 2. Start up maintenance mode 2. 3. Counter initialize menu ---> Initialize RTC, input date. 4. Turn off.
00010024	Module communication time out error Check all connections between boards (Especially HJFK board).

00010025	CSIC ROM communication error 1. Check Ink Cartridge connection. 2. Replace Ink Cartridge.
00010026	RTC access error: 1. Remove battery (Power OFF state). 2. Attach battery after several seconds. 3. Turn on. 4. Repeat 1-3 until an error does not occur. 5. Start up maintenance mode2. 6. Counter initialize menu ---> Initialize RTC, input date. 7. Turn off.
00010027	Pressurization error (displayed only in Self Diagnostics Mode)
00020000	NVRAM error
00020001	NVRAM comparison error
00020002	SDRAM error
00020003	Flash Memory sum error
00020004	ASIC version error
00020005	Firmware ASIC mismatch error (ver. a.)
00020006	Firmware ASIC mismatch error (ver. b.)
00020007	Head ASIC mismatch error 1. Exchange Driver Board
00020009	Flash memory check SUM error
00030000- 00030013	Debug Error 1. Exchange Driver Board

00030015	Ink supply defective (K)
00030016	Ink supply defective (C)
00030017	Ink supply defective (M)
00030018	Ink supply defective (LC)
00030019	Ink supply defective (LM)
10000100	CPU address error (storage misalignment)
10000180	CPU reserve command code exception error
0001000A	CR home position sensor error
0001000C	Head slide (PG) home position sensor error
0001000D	Cover Sensor malfunction
0001000E	Cover Sensor malfunction
0001000F	CR motor PWM output faulty
0001001A	Sub Tank Overfill (Y)
0001001B	Head driver (TG) temperature error
0001001C	Shutter Box home positon error
0001001D	CR servo parameter error
0001001E	PF servo parameter error
0001002D	Reset the Cleaner Counter in Maintenance Mode 2
0001FFFF	Reset the Print Head Counter in Maintenance Mode 2
0002000B	Internal memory shortage error
0002000C	Review error

0003001A	Ink supply defective (Y)
0003001B	Gap Adjustment range error
0003001C	Time out in case of no print finishing with ASIC 1. Exchange Driver Board
100000E0	CPU address error (load misalignment)
100001A0	CPU slot illegal command exception error
100005C0	CPU DMA address error
10000xxx	CPU error
D0120013	Module communication error
D012001E	Engine side ASIC command transmition overflow error 1. Exchange Driver Board
D012001F	Engine side ASIC command receiption overflow error 1. Exchange Driver Board
D0xxxxxxxx	Program error
FFFFxxxx	OS kernel detection error

Firmware History

Stylus Pro 10600 Current Firmware Ver. TP01627.2527.1726

Release date :***February 12th, 2002***

1. A 90 second wait time was added between cuts to allow the ***Cutter Solenoid*** to cool.

2. The installation information for the ***Photo Accelerator Module*** and ***Type-B interface Card*** was added to the **Adjustment Variable Print** sheet, in **Self-diagnostics** mode.

3. The ***Print Head*** is now capped if AC power is removed when in the **Self-diagnostics** mode, preventing damage to the ***Print Head*** and the ***Cleaning/Capping Station*** .

4. Horizontal banding was resolved by modifying the paper feed value for the following media.
   - 4.1 Enhanced Matte
   - 4.2 Poster Board
   - 4.3 Smooth Fine Art Paper (Sheet)
   - 4.4 Textured Fine Art Paper (Sheet)

5. Service request **00010006** is resolved when executing the **Test -> Sensor** in the ***Self-diagnostics*** mode. During initializing of the ***Printer***, the ***Carriage*** no longer hits against the ***Right Side Frame***.

6. The default value for the *Bi-d* adjustment is changed to the center value used in the production line.

Firmware: Updating From DOS

Firmware File Example: MP_231A_181A_0517.IPL
The latest Firmware file may be different than the example use in this procedure.
The latest Firmware file should always be used.

1. Connect the ***Printer*** to the ***PC*** via a ***Parallel Printer Cable.***
2. Copy the firmware file to the ROOT directory of you ***Hard Drive***.
3. Boot your ***Computer*** in DOS mode.
4. Ensure that you are logged to C:\
5. Type: **copy (name of firmware file.extension) lpt1:/b** (***do not press the Enter key***)
   5.1 Example: **copy *MP_231A_181A_0517.IPL* lpt1:/b**

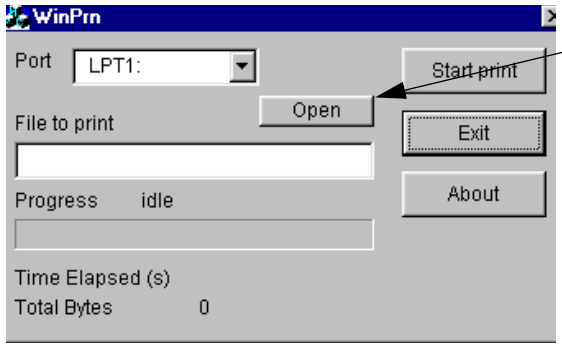
   Note: Step 4 prepares the computer to send the firmware. It is important to send the file quickly after preparing the printer to receive it. At this point, when the Enter key is pressed, the file will be sent.
6. Turn on the ***Printer*** while holding down the Cleaning + Paper Source + Cut/Eject buttons.
   6.1 The display will read **F/W Download**
7. Press the **Enter** key on the PC key to start the firmware update.
   7.1 Once completed, the display will read **Update Complete** and all ***Control Panel*** LED's will be ON.
8. Turn off the ***Printer***.

Firmware: Updating From Windows (WinPRN Utility)

Firmware File Example: MP_231A_181A_0517.IPL
The latest Firmware file may be different than the example use in this procedure.
The latest Firmware file should always be used.

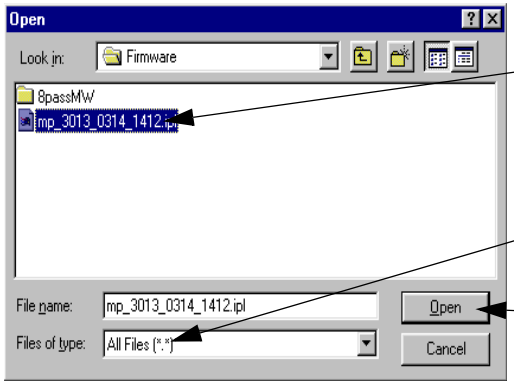
1. Execute WINPRN.EXE Located in the Utilities folder on your Epson Resource CD.

2. Click **Open**.



OPEN

3. Locate Firmware File



Firmware File (MP_231A_181A_0517.IPL)

File Type *.*

Open

3.1 Change File Type to ***.***

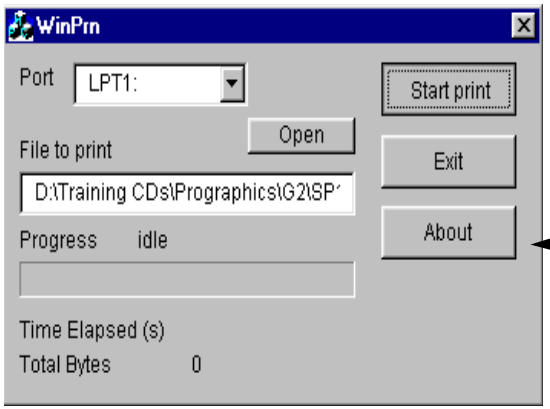
3.2 Highlight **Firmware file (MP_231A_181A_0517.IPL)**

3.3 Click on **Open**

4. Turn on the ***Printer*** while holding down the Cleaning + Paper Source + Cut/Eject buttons.

4.1 The display will read **F/W Download.**

5. Click **START PRINT** to copy file to printer.



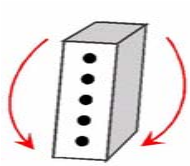
Start Print

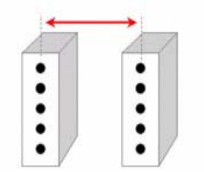
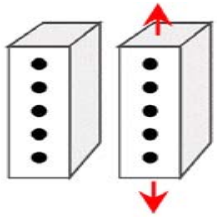
5.1 Once completed, the display will read **Update Complete** and all ***Control Panel*** LED's will be ON.

6. Turn off the ***Printer***.

Glossary

Artifact	A defect, that is within an image. It can mean something on the graphic that was not intended, or something missing that was intended. All image quality defects are artifacts.
Bi-Directional Adjustment:	An electronic adjustment, that ensures that a printer can coordinate left to right, with right to left, printing.
Capped Position:	The print head at it's stand by position, with the cap mechanism sealing the nozzles.
Coating:	The top layer of graphics paper (media) that consists of a special substance designed to trap ink and keep it from being absorbed into the paper fibers. Non-paper based ink jet media uses coating to allow the ink to bond with the surface. A coatings purpose is to minimize dot gain, and control saturation.
Color Shift:	An unintended change of a gradient or tone.
Continuous Tone:	The qualities of a photograph that makes an image appear real. The smooth and life-like transition from one color shade to the next, like in a photograph. Epson Ink Jet printers are not continuous tone printers. But when working properly, their printed images fool the human eye into seeing continuous tone transitions.
Debris:	A term that refers to unintended ink on the page deposited by debris dropping from the print head.
Deflected Nozzle:	A nozzle is firing, but the ink drop is not landing where it is intended too. Irregular spacing on the nozzle check pattern indicates this condition.
Dithering:	The dot pattern placed on the printed surface to create and image. Also known as screening.
Dot Gain:	A drop of ink tends to travel out from its point of impact, as the media absorbs it. The purpose of the coating (on the media) is to minimize dot gain.

Drop of Ink:	Ink that appears to have dripped from the print head, or any other component of the ink supply.
Dye Ink:	Ink that colors the printed surface with dye. It is less durable than pigment ink, but has a wider color range (gamut).
Electronic Alignments:	Printer adjustments, which are performed using software routines that, allow the printer to compensate for physical variations in its mechanism.
Error Diffusion:	The type of dithering (screening) proprietary to Epson, that employs a random dot pattern to ensure that the human eye can discern no pattern.
Flight Time:	The time it takes a drop of ink to travel from the print head to the printable surface.
Gamut:	The range of colors that a printer can produce.
Ghosting:	A term that refers to components of an image that are intended to be on top of each other (or adjacent), but are offset.
Gradient:	A smooth transition between one color shade, and the next. A continuous tone image requires a smooth gradient for all its tonal shifts.
Grainy:	A breakdown of the “illusion of continuous tone”. A printed image that does not have smooth tonal transition, and sharp detail.
Head Angular Adjustment:	A term that refers to a mechanical print head alignment that ensures that an ink jet’s print heads nozzles are on the same vertical plane. (Also known as the B head slant or the C head slant.) The head is rotated until it is vertically linear. 

Head Gap Adjustment:	An electronic print head adjustment that ensures that the printer knows the exact distance between nozzle sets on separate heads. Also known as Head L/R and Uni-Di.. 
Head ID:	The calibration value written on the print head that allows the printers electronics to compensate for the print heads “personality” (inaccuracies).
Head Linear Adjustment:	A mechanical print head alignment that ensures that on a two-head ink jet printer that all the nozzles are on the same horizontal plane. (Also known as Head Height and BC Head Slant.) The right head is moved in relation to the left head. 
Home Position:	The print head’s horizontal reference position, as determined by the Home Position Sensor
Horizontal Banding:	An image defect that extends from the left, to the right margin (parallel to the direction of print head movement). The defect could be a lighter or darker “band” than is intended. It usually repeats, with the same interval, from the top margin to the bottom.).
Horizontal Over-lap:	A type of horizontal banding, where multiple print head passes overlap while printing. The banding looks darker than the intended image. Multiple passes of the print head should place ink on the paper next to, but not on top of earlier passes.

Horizontal Under-lap:	A type of horizontal banding, where multiple print head passes have a space between them. The banding looks lighter than the intended image. Multiple passes of the print head should place ink on the paper exactly next to earlier passes with no space in between.
Illusion of Continuous Tone.	A term that refers to “fooling” the human eye into perceiving a dot matrix image as a photograph (continuous tone image). Epson ink jet printers are not continuous tone printers. However, when working properly, their printed images fool the human eye into seeing continuous tone transitions
Ink Color Contamination:	The intended color of the ink supply has been altered.
Ink Impurities:	Foreign objects in the ink supply.
Margin Shift:	A term that refers to an image with irregular right and left side margins.
Mechanical Alignments:	Printer adjustments, that requires physically moving parts of the mechanism.
Media:	The surface that is being printed on, usually paper.
Metamerism:	The different appearance of colors caused by different light sources and viewing angles
Micro Weave:	The way an Epson Ink Jet printer interlaces (weaves) bands of and image during printing.
Moiré Pattern:	A repetitive pattern, within an image, which is not intended. I can appear like a paisley or herringbone pattern.
Over Saturation:	Too much ink has been applied to the printable surface for the media to support.
Paint Brush Effect:	Something horizontally across the printed surface, that was not intended. Usually caused by an ink soaked fiber hanging off the print head.
Pigment Ink:	Ink that deposits colored particles (pigment) on the printed surface to create an image. It is more durable than dye based ink, but does not have as wide a color range (gamut).

Pixilated:	An image quality issue that is caused by a low-resolution image printed at high resolution.
Platen Gap:	The distance between the print head, and the printable surface.
Rippling:	A term that refers to a condition caused by over saturated paper warping.
Saturation:	The amount of ink applied to the printed surface.
Screening:	The dot pattern placed on the printed surface to create and image. Also known as dithering.
Skew:	Crooked paper in the printer.
Smear:	An image that has been rubbed by something, causing it to be deformed, or smeared. The direction or any repetition of the smear should be noted.
Smudge:	Something on the printed surface, that was not intended. Usually transferred to the page because of contact with a dirty roller or the print head. Any repetition should be noted and measured.
Sublimation Ink:	Ink that is first printed on thermal transfer media, and then transferred using heat to another surface.
Sympathetic Nozzle:	A nozzle that is not intended to fire, firing in conjunction with an intended nozzle.
Tone:	The specific shade of a color.
Under Saturation:	Not enough ink has been applied to the printable surface to properly saturate the media.
UN-sharp:	“Fuzzy “qualities in an image usually caused by too much dot gain.
Vertical Banding, Irregular:	Vertical bands perpendicular to the direction of print head movement, that are not linear. Usually created by paper “rippling”, caused by over saturation.

Vertical Banding, Linear:	An image defect that extends from the top, to the bottom margin (perpendicular to the direction of print head movement). It usually repeats, with the same interval, from the left margin to the right.
White Specks:	A term that indicates that the intended image has small missing areas where no ink has been deposited.

Image Quality Diagnosis and Repair

Horizontal Banding:

1. Perform a **Nozzle Check** from the **Adjustment** menu within Self-Diagnostic Mode.
   - 1.1 Inspect printed pattern for missing, deflected or sympathetic nozzle(s).
     - 1.1.1 Perform 2 Cleaning Cycles then reprint **Nozzle Check**.
       - 1.1.1.1 Missing or deflected nozzle(s)
         - 1.1.1.1.1 Clean the three ***Caps, Wipers, and Wiper Cleaners*** and repeat cleaning cycles.
         - 1.1.1.1.2 Inspect the ***Cap Assemblys*** and replace if it is damaged.
         - 1.1.1.1.3 Replace the ***Print Head***.
       - 1.1.1.2 Sympathetic nozzle(s)
         - 1.1.1.2.1 Replace the ***Print Head***.
2. Verify that the paper is not binding:
   - 2.1 While loading.
   - 2.2 While ejecting.
   - 2.3 On the spindle.
3. Verify the Head Slant alignment is correct (**A13 Slant**)
   - 3.1 Print and inspect the pattern.
   - 3.2 Perform adjustment if required.
4. Verify Platen Gap, with the **Printer Settings** section, of the SelecType Menu.
   - 4.1 Two settings are available: ***Standard*** and ***Wide***.

4.2 Set to the appropriate setting to match the media (default is **Standard**)

4.3 Verify that the platen gap is being set to the proper position by observing the ***Platen Gap HP Flag***.

4.3.1 Inspect ***Thickness Sensor Actuator*** for proper position.

4.3.2 Adjust if required.

5. Verify the ***Printer's*** **Driver** type and settings.

5.1 Non-Epson RIPS and Drivers

5.1.1 Verify that they support paper types.

5.1.1.1 If they do not, saturation and banding issues are probable.

5.1.1.1.1 Adjust paper settings using the **SelecType Paper Config** menu.

5.1.2 Verify that they support **MicroWeave**

5.1.2.1 If they do not orizontal banding is probable.

5.2 Epson Printer Driver settings.

5.2.1 Set Resolution (**1440 High Speed- OFF** for best quality)

5.2.1.1 Slight banding may occur at lower resolutions. That is within the printer's specifications.

5.2.2 Verify that **MicroWeave** is enabled.

5.2.3 Verify Screening Method (**Error Diffusion** is the best choice).

5.2.4 Verify Paper settings.

5.2.4.1 Type (**Plain, Semi-Gloss, Luster, etc**.)

5.2.4.2 Configuration (**Paper Thickness, Suction, etc**.)

6. Verify media and ink vendors.

6.1 Non-Epson ink and media can result in saturation and banding issues.

7. Inspect ***Paper Feed Encoder Disc*** for cleanliness.

8. Perform ***Paper Feed Belt*** Tension Adjustment.

9. Perform the **Feed Length** Adjustment.

10. Verify that the printer doesn't pause during printing (caused by a slow computer).

    10.1 If the printer pauses, it can create a horizontal band (especially on pigment ink printers). To minimize the problem:

        10.1.1 Verify that the ***Printer's Interface*** is sufficiently fast.

            10.1.1.1 Use Fire Wire when not using the ***Photo Accelerator*** option (Non Epson Rips or Drivers)

        10.1.2 Set **Spool Settings** within the **Driver Properties**

            10.1.2.1 Select **Start printing after last page is spooled**

        10.1.3 Set **High Speed OFF** within the printer driver.

11. For UltraChrome Printers only, perform the **Paper Feed Adjustment** (**Driver** or **SelecType**).

    NOTE: (This adjustment is the responsibility of the User. Adjustment must be performed from the customer's computer. The compensation value is attached to the driver.)

12. Verify correct Head ID (***Print Head*** calibration value)

    12.1 Compare the label on the ***Print Head*** and "Head ID" value located in the **Adjustment** section of the Self-Diagnostic Mode.

13. Verify that the printer doesn't pause during printing (caused by a slow computer).

    13.1 If the printer pauses, it can create a horizontal band (especially on pigment ink printers). To minimize the problem:

        13.1.1 Set **Spool Settings** within the **Driver Properties**

            13.1.1.1 Select **Start printing after last page is spooled**

        13.1.2 Set **High Speed OFF** within the printer driver.

14. Replace the ***Paper Feed Motor*** (very rare)

Vertical Banding, Linear

1. Print with **High Speed** turned off (Uni-directional).
   1.1 If the quality improves perform a Bi-directional adjustment.

2. Verify the **Printer Driver** settings.

   Note: Non-Epson drivers may need to have a custom profile created to ensure optimum print quality. Non-Epson drivers may not support MicroWeave. Use the Epson driver, supplied media, and image to eliminate customer media, driver and application issues.

   2.1 Set Resolution (**1440 High Speed- OFF** for best quality)
      2.1.1 Slight banding may occur at lower resolutions. That is within the printer's specifications.
   2.2 Verify that **MicroWeave** is enabled.
   2.3 Verify Screening Method (**Error Diffusion** is the best choice).
   2.4 Verify Paper settings.
      2.4.1 Type (**Plain, Semi-Gloss, Luster, etc**.)
      2.4.2 Configuration (**Paper Thickness, Suction, etc**.)

3. Perform the **Head LR** Adjustment

4. Verify Platen Gap, with the **Printer Settings** section, of the SelecType Menu.
   4.1 Two settings are available: ***Standard and Wide***.
   4.2 Set to the appropriate setting to match the media (default is **Standard**)
   4.3 Verify that the platen gap is being set to the proper position by observing the ***Platen Gap HP Flag***.
      4.3.1 Inspect ***Thickness Sensor Actuator*** for proper position.
      4.3.2 Adjust if required.

Vertical Banding, Irregular: (Paper Rippling)

1. Verify **Printer Driver** settings.

   Note: Non-Epson drivers may need to have a custom profile created to ensure optimum print quality. Non-Epson drivers may not support MicroWeave

   1.1 Set Resolution (**1440 High Speed- OFF** for best quality)

   1.1.1 Slight banding may occur at lower resolutions. That is within the printer's specifications.

   1.2 Verify that **MicroWeave** is enabled.

   1.3 Verify Screening Method (**Error Diffusion** is the best choice).

   1.4 Verify Paper settings.

   1.4.1 Type (**Plain, Semi-Gloss, Luster, etc**.)

   1.4.2 Configuration (**Paper Thickness, Suction, etc**.)

   Note: Very High humidity may contribute to the issue (wet paper). Use the Epson driver, supplied media, and image to eliminate customer media, driver and application issues.

2. Verify correct Head ID (***Print Head*** calibration value)

   2.4.1 Compare Label on the ***Print Head*** with the value displayed in the **Check: Adjustment** section of Self Diagnostic Mode.

Over or Under Saturation: (See Vertical Banding Irregular

Grainy:

3. Verify Platen Gap, with the **Printer Settings** section, of the SelecType Menu.

   3.1 Four settings are available: ***Standard and Wide***.

   3.2 Set to the appropriate setting to match the media (default is **Standard**)

   3.3 Verify that the platen gap is being set to the proper position by observing the ***Platen Gap HP Flag***.

3.3.1 Inspect ***Thickness Sensor Actuator*** for proper position.

3.3.2 Adjust if required.

4. Perform the Head Angular Adjustment.
5. Perform the Bi-directional Adjustment.
6. Perform the **Head LR** Adjustment.

Un-sharp: Caused by to much dot gain: (See Vertical Banding Irregular)

Smear: typically caused by one or more of the following reasons.

1. Slow dry time caused by 3rd party media.
   1.1 Try with the Epson supplied media, image and driver.
2. Slow dry time caused by 3rd party ink.
3. Slow dry time caused by over saturated media.
   3.1 Try with the Epson supplied media, image and driver.

Debris:

1. Clean the edges (metal) of the ***Print Head*** ***(DO NOT touch Print Head nozzle area)***.
2. Clean the 3 ***Caps, Wiper Blades, and Wiper Cleaners.***

   Note: Look for fibers from cotton or rag based media, attracted to the Print Head and saturated with ink. It collects and drops onto the media.

Smudge:

1. Clean the ***Paper Feed Rollers***.
   1.1 (Ink or dirt accumulation)
2. Ensure the ***Print Head*** is in the cap position while loading paper.
   2.1 (Paper contact with the ***Print Head*** during loading)
3. Increase **Suction to Normal** or feed paper an extra 3 inches.
   3.1 (To much curl on the leading edge of the media for the ***Suction Fan*** to over come, results in contact between the media and the ***Print Head***)

Drop of Ink:

1. Inspect the ***Ink Supply Tubes*** for damage (Leakage).
2. Inspect ***Dampers*** for correct installation or damage (Leakage).
   2.1 Inspect the ***O-ring*** inside the ***Joint Screw*** (fitting that joins the ***Ink Supply Tube*** to the ***Damper***).
      2.1.1 Look for a deformed ***O-ring*** caused by over tightening the ***Joint Screw***

Paint Brush Effect: Ink saturated fibers on the Printhead being dragged across the media.

3. Clean the edges (metal) of the ***Print Head*** ***(DO NOT touch the Print Head nozzle area)***
   3.1 Clean ***Cap, Wiper Blade, and Wiper Cleaner Assembly***

Note: Look for fibers from cotton or rag based media, attracted to the Print Head and saturated with ink. It collects and drops onto the media.

Pixilated:

1. Use the Epson supplied image to eliminate the following:
   - 1.1 Application
   - 1.2 Low quality (resolution) image
2. Perform a Bi-Directional Adjustment

Ink/Cleaning Cartridges

Cartridge, Cleaning	1214261
Cartridge, Draining	1060627
Cartridge, Ink, Dye, Black	1062232
Cartridge, Ink, Dye, Cyan	1062235
Cartridge, Ink, Dye, Light Cyan	1062237
Cartridge, Ink, Dye, Light Magenta	1062236
Cartridge, Ink, Dye, Magenta	1062234
Cartridge, Ink, Dye, Yellow	1062233
Cartridge, Ink, Archival, Black	1062244
Cartridge, Ink, Archival, Cyan	1062247
Cartridge, Ink, Archival, Light Cyan	1062249
Cartridge, Ink, Archival, Light Magenta	1062248
Cartridge, Ink, Archival, Magenta	1062246
Cartridge, Ink, Archival, Yellow	1062245
Cartridge, Ink, UltraChrome, Black, Matte	1155887
Cartridge, Ink, UltraChrome, Black, Photo	1155881
Cartridge, Ink, UltraChrome, Cyan	1155882
Cartridge, Ink, UltraChrome, Light Cyan	1155885
Cartridge, Ink, UltraChrome, Light Magenta	1155886
Cartridge, Ink, UltraChrome, Magenta	1155883

Cartridge, Ink, UltraChrome, Yellow	1155884

Missing Nozzle Diagnosis and Repair

Note: Inspect the printer and media for dust or fiber accumulation. Excessive "dirt" will cause missing nozzles.

Some Missing Nozzles, One or more Colors

1. Check ***Cap Assembly*** for mechanical problems and "dirt".
   - 1.1 Clean the three individual ***Caps.***
   - 1.2 Check ***Wiper Blades*** for flaws.
   - 1.3 Clean the ***Wiper Blades.***
   - 1.4 Clean ***Wiper Blade Cleaners.***
2. Puddle the ***Caps*** and park the ***Print Head*** for 30 minutes.
   - 2.1 Fill the ***Caps*** with as much water as possible.
   - 2.2 Park the ***Printhead*** on the ***Cap Assembly.***
3. Perform 2 cleaning cycles.
   - 3.1 Re-test the ***Nozzles***.
   - 3.2 Repeat step 3 if there is progress.
4. Replace the ***Print Head*****.**

   Note: Inspect the printer and media for dust or fiber accumulation. Excessive "dirt" will cause missing nozzles.

All Nozzles Missing, One or More Non-Paired Colors (B,DC) (LC,LM) (DM,Y)

1. Determine the ***Waste Ink Tube*** that corresponds to the missing color.

2. Perform a cleaning cycle.

3. Compare the ***Waste Ink Tube*** that relates to the missing color against the other two ***tubes***. There should be equal ink volume on all three ***tubes***.

4. Determine whether the ***Ink Cartridge Solenoid*** that corresponds to the missing color activates to refill the ***sub tank*** on the ***Print Head***. (It may take up to 4 cleaning cycles to activate a ***solenoid***.)

   4.1 If the ink flow is lower than the other tubes, and the related ***solenoid*** does not activate:

      4.1.1 Replace the ***Print Head.***

   4.2 If the ink flow is equal on all three ***tubes***, and the related ***solenoid*** does activate:

      4.2.1 Replace the ***Driver Board.***

All Nozzles of One or More Color Pair(s) Missing (B,DC) (LC,LM) (DM,Y)

1. Determine the ***Waste Ink Tube*** that corresponds to the missing color.

2. Perform a cleaning cycle.

3. Compare the ***Waste Ink Tube*** that relates to the missing color against the other two ***tubes***. There should be equal ink volume on all three ***tubes***.

4. Determine whether the ***Ink Cartridge Solenoid*** that corresponds to the missing color activates to refill the ***sub tank*** on the ***Print Head***. (It may take up to 4 cleaning cycles to activate a ***solenoid***.)

   4.1 If the ink flow is substantially lower than the other ***tubes***, and the related ***solenoid*** does not activate:

4.1.1 Replace the ***Cap Assembly*** and check for proper operation.

4.1.2 If the ***Cap Assembly*** does not repair the ***Printer,*** replace the ***Print Head***.

4.2 If the ink flow is equal on all three ***tubes***, and the related ***solenoids*** activate:

4.2.1 Replace the ***Driver Board.***

All Nozzle Pairs Missing

1. Perform a cleaning cycle.

2. Determine whether the ***Waste Ink Tubes*** are passing ink. There should be and substantial volume on all three tubes.

3. Determine whether all six ***Ink Cartridge Solenoids*** are activating to refill the sub tanks on the ***Print Head***. (It may take up to 4 cleaning cycles to activate a solenoid.)

4. If there is no or uneven ink flow on all three ***tubes***, and the related ***solenoids*** do not activate:

4.2.1 Replace the ***Cap Assembly*** and check for proper operation.

4.2.2 If the ***Cap Assembly*** does not repair the ***Printer,*** replace the ***Print Head***

4.2.3 If there is substantial ink flow on all three ***tubes***, and the related ***solenoids*** activate

4.2.1 Replace the ***Driver Board.***

New Print Head for DYE Printers

A new Print Head and a new part number is available to address the issues listed below. The new Print Head is for **DYE model Stylus Pro 10600 inkjet printers ONLY**.

- One or more nozzles fail.
- Horizontal banding caused by nozzle issues.
- One or more colors completely missing.
- Service Request 0001001B, Head Driver Temperature error.

Interchangeability:

For the Archival model of this printer continue using the original print head part number (**F086030**) until this inventory is depleted. When the inventory of the original print head is depleted the New Style print head part number (**F086031**) will automatically be substituted.

Updated Print Head Part Numbers:

	New Part Number	Part Description	Replaces Part Number
Stylus Pro 10600:	**F086031**	**Print Head Set ARC/DYE/ UCM**	**F086030**

Note:

Stylus Pro 10600 DYE Model - Inventory of the New Style print head will be available as of 5/8/03. Continue using existing Print Head until then.

Stylus Pro 10600 Print Head is not compatible or interchangeable with Stylus Pro 10000 Print Head. DO NOT substitute these parts.

Field Instructions:

Perform nozzle checks and cleaning's when ever a nozzle issue is observed to recover the Print Head. ***Only*** when standard nozzle recovery procedures fail to recover nozzle issues should the Print Head be replaced.

Operational Sequences

Compare the Printers operation to the following sequences.

Technician Action	What You Should See	
Turn on power, ***no paper*** loaded, and the ***Paper Release Lever*** in the ***"Secured" position***.	***Note: the following sequence and the sequence to the right, occur simultaneously. Any failure of one sequence is reported after completion of both sequences*** 1. The ***Air valve Solenoid*** closes. 2. The ***Air Compressor*** pressurizes the ***Ink Cartridges***. 3. The ***Air Pressure Sensor*** detects 1.1 atmospheres of pressure. 4. The ***Compressor Motor*** turns off.	1. The ***Cap Assembly*** drops to release the ***Print Head***. 2. The ***Shutter Box*** initializes and finds it's home position. 3. The ***Paper Release Solenoid*** locks the ***Paper Release Lever***. 4. The ***Print Head*** goes to it's home position. 5. The ***Platen Gap Mechanism*** finds it's home position. 6. The ***Print Head*** moves away from home position. 7. The ***Wiper Blades*** clean themselves. 8. The ***Print Head*** moves back to it's home position. 9. The platen gap is set. 10. The ***Cap Assembly*** engages and cleans the ***Print Head***. 11. The ***Flushing Box Fan*** turns on. 12. The ***Printer*** performs an Auto nozzle check. 13. The ***Platen Gap*** is set. 14. The ***Paper Release Solenoid*** unlocks the ***Paper Release Lever***. 16. The ***Printer*** displays the ***Paper Out Light***.

Technician Action	What You Should See	
Load roll paper		17. The ***Printer*** displays **press pause**. 18. The paper loads to ***P-fron***t sensor. 19. The platen gap is set. 20. The ***P-Edge*** sensor checks the media width. 21. The ***P-Edge*** sensor checks the leading edge of the media. 22. The ***Platen Gap*** is set. 23. The paper is moved to the “top of form” position. 24. The ***Printer*** displays **Ready**.

Paper Feed Belt Tension Adjustment

Note: The following instructions are for the purpose of performing the belt tension adjustment when the 4000g Tension Gauge is not available. Recommended tension is 3500g

1. Remove the ***Left Side Cover*** (7 Screws).
2. Loosen the ***4 screws*** on the ***Fixing Bracket*** circled in FIG. 1.
3. Slide the ***Fixing Bracket*** in the direction indicated in FIG. 1.
4. While holding the ***Bracket*** in place, tighten the ***bottom left and top right screws*** to secure ***Bracket*** evenly.
5. Secure remaining 2 ***screws.***
6. Inspect the ***Belt*** tension by pressing with your finger as shown in FIG. 2.
7. The ***Belt*** will flex approximately a 1/8”. Refer to red circle in FIG. 2.

Fig.1

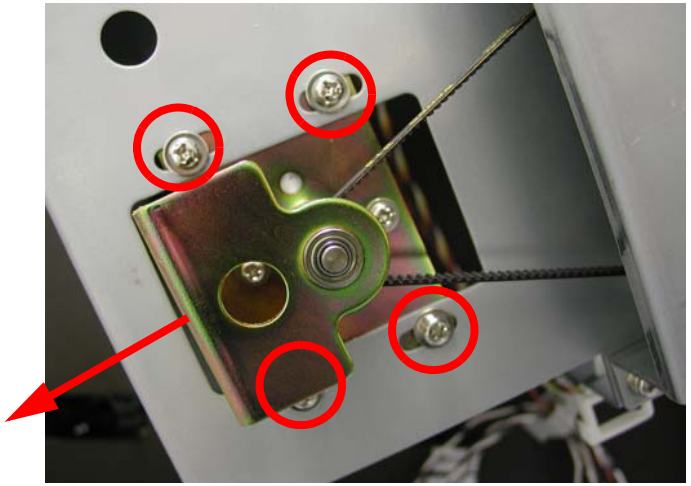
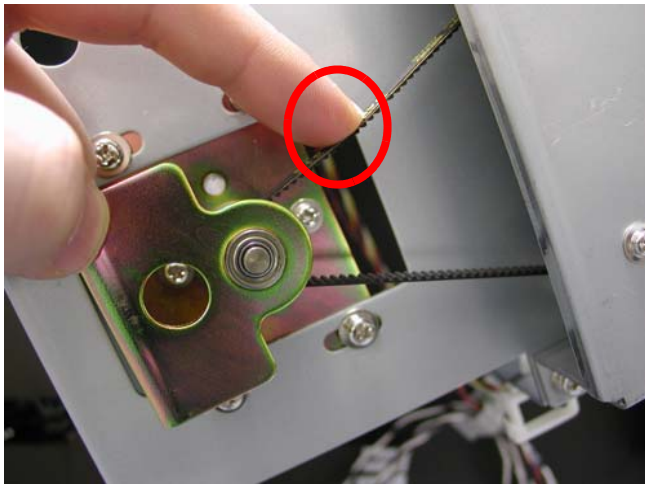


Fig. 2



NOTE: If the Paper Feed Timing belt tension is to loose, Horizontal Banding will appear. Refer to the Image Quality Diagnosis Document for more details on Horizontal Banding.

Paper Jam Errors

Paper Jam Errors do not relate to the Paper Feed Mechanism.

A Paper Jam Error indicates a Carriage motion issue

1. Check for mechanical binding of the ***Carriage Mechanism*** across the entire length of the ***Carriage Rail***.

2. Check the ***Carriage Encoder*** for proper operation using the ***Carriage Encoder*** test located in **Self Diagnostic Mode:Check Test** section.

3. Check the ***Carriage Belt*** for the proper tension.

4. Replace the ***Carriage Encoder Strip***.

5. Replace the ***Carriage Motor***.

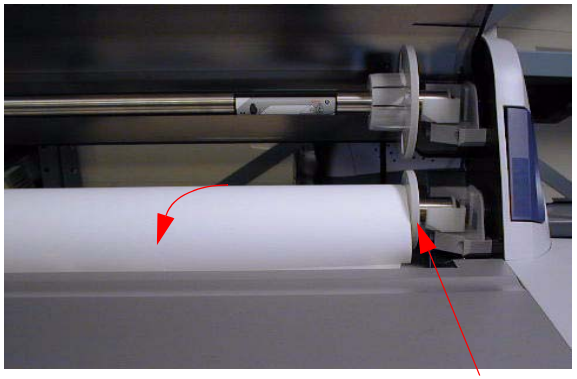
Paper Loading Errors (Roll)

1. Verify media type and vendor.
   - 1.1 Epson or Non-Epson media.
   - 1.2 Verify the media characteristics.
     - 1.2.1 Not too transparent.
       - 1.2.1.1 Media that is too transparent may not be recognized by the ***Paper Sensors***.
     - 1.2.2 Not too thin.
       - 1.2.2.1 Thin media may skew.
       - 1.2.2.2 Thin media may crease.
       - 1.2.2.3 Thin media requires a ***High Tension Spindle***.
     - 1.2.3 Not too thick.
       - 1.2.3.1 Thick media may retain its curl and:
         - 1.2.3.1.1 “Hang up” while inserting.
         - 1.2.3.1.2 Strike the ***Print Head*** when the media’s width is being verified.
   - 1.3 Measure the width of the media.
     - 1.3.1 The media must be exactly one of the supported widths.
       - 1.3.1.1 10”, 24”, 36”, 44”
     - 1.3.2 A slight size variation (1/4”) could cause a **Paper Loading** Error.
   - 1.4 Verify that there is no printing on either side of the media that could confuse the ***Edge Sensor***, causing a loading error.
   - 1.5 Try a different media for contrast.

2. The **Reload Paper** error can be generated when a print job is sent:
   - 2.6 If the image’s page size is larger than the loaded media.

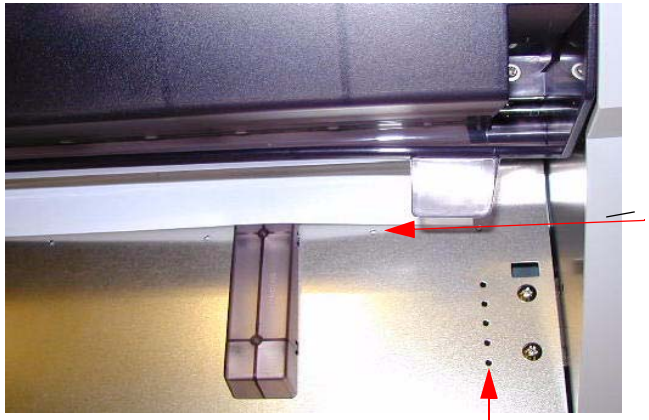
2.7 If the Driver is set to **Roll** and the ***Printer's Control Panel*** is set to ***Sheet*** (or vice versa).

3. Verify that the media is loaded correctly.



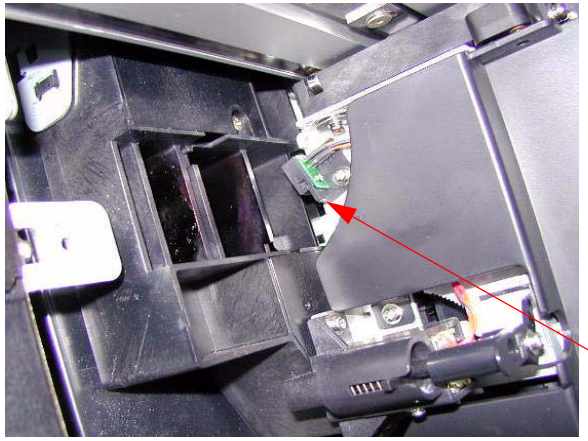
Verify that the light colored Spindle Edge is on the right side of the Printer.

Verify that the Media is mounted on the Spindle so that it feeds from the front of the Spindle.



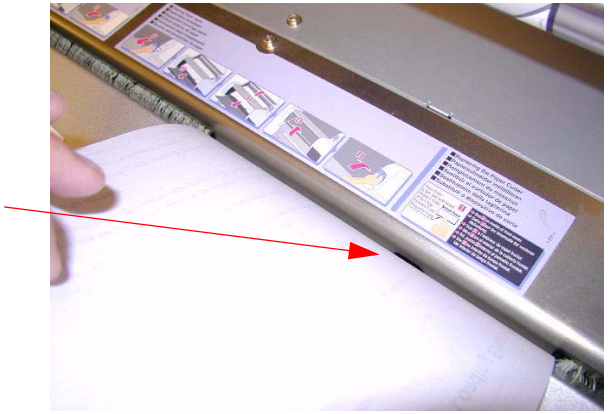
Verify that the alignment marks are being used as shown, when loading paper.

4. Blow the dust off of 2 ***Paper Sensors***.



Insert a piece of paper, and bend it forward. Look down through the top right side of the Printer where the paper is inserted.

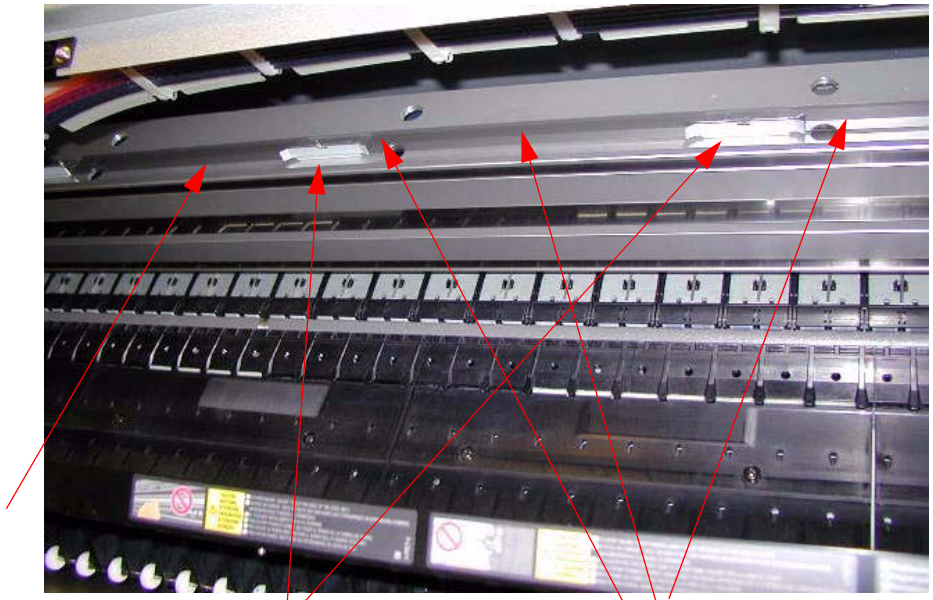
Look on the left side of the Print Head Mechanism.



5. Clean the ***Timing Strip***.

Open the Front Cover, and look up.

The Timing Strip is a long plastic strip that is supported by multiple metal brackets.



5.1 Gently wipe the ***Timing Strip*** on both sides with a lightly moistened soft cloth.

Do not apply pressure, the Timing Strip scratches easily.

Do not pull the Timing Strip off of it's Mounting Brackets.

6. Verify that there is not strong direct light shining on either ***Paper Sensor***.

7. Verify that the ***Paper Sensors*** work.

7.1 Turn on the ***Printer*** while holding the **Paper Feed +**, **Paper Feed -**, and the **Cut/Eject** buttons.

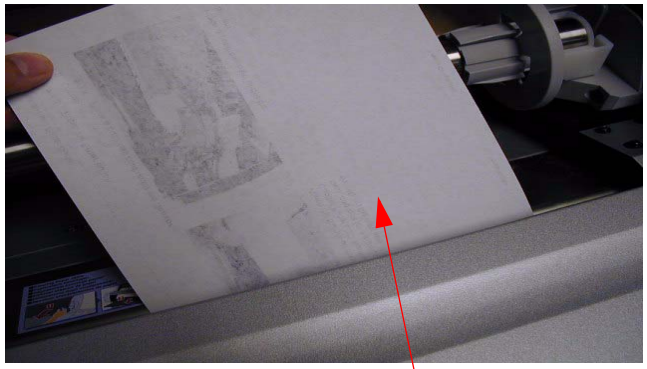
7.1.1 The ***LCD*** will display **Check:Test**.

7.1.2 Press the **Enter** button.

7.1.3 Press the **Paper Source** button until the ***LCD*** displays **Test: Sensor**.

7.1.4 Press the **Enter** button.

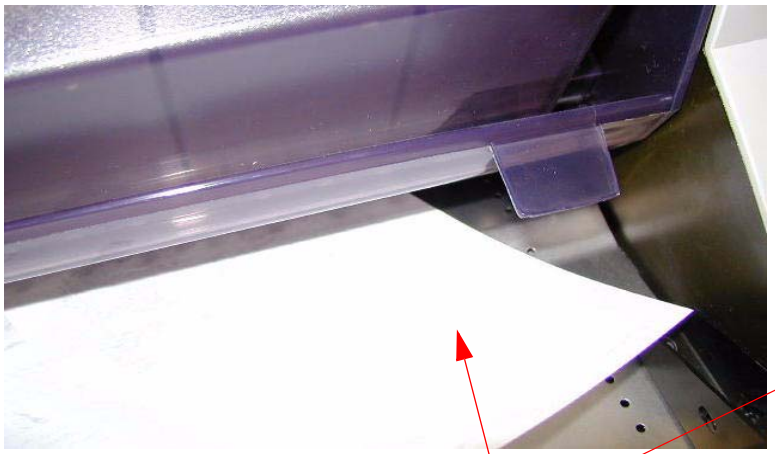
7.1.5 Press the **Paper Source** button until the LCD Displays **Sen: RearAD**.



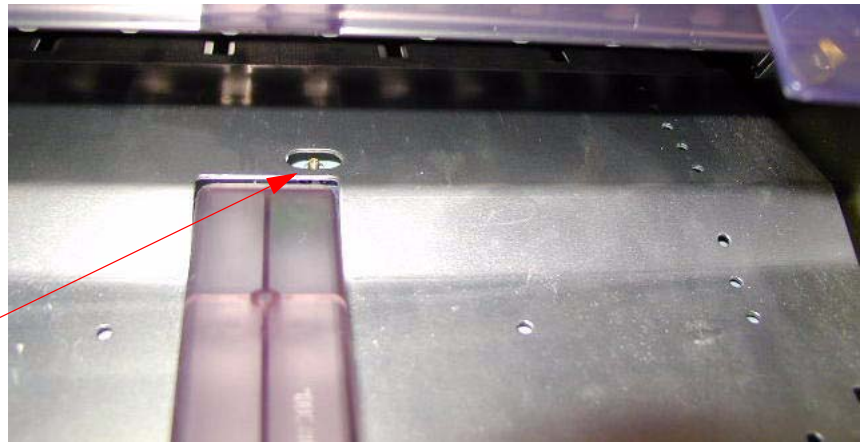
Place a piece of paper in the paper path on the right side of the Printer.

Watch the 6 digits on the right side of the Control Panel LCD. Remove the piece of paper, and look for a significant change in the 6 digits on the right side of the display.

7.1.1 Press the **Paper Source** button until the LCD Displays **Sen: FrontAD**.

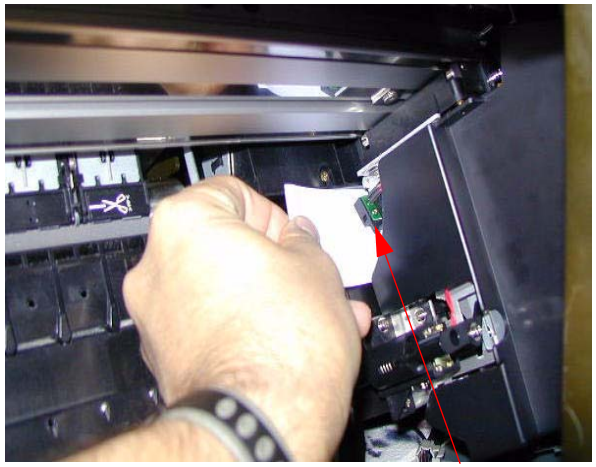


Place a piece of paper over the paper sensor located on the bottom, right side of the paper path.

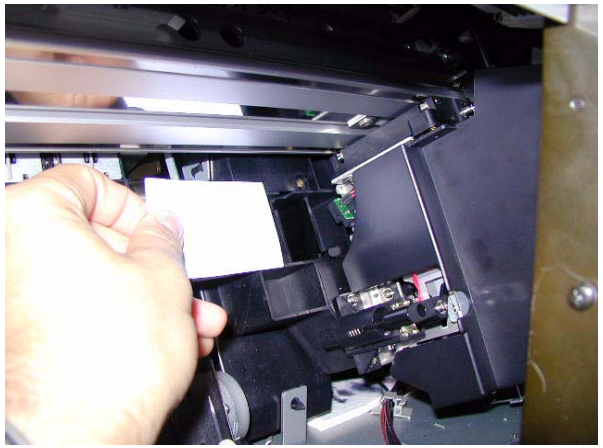


Watch the 6 digits on the right side of the Control Panel LCD. Remove the piece of paper, and look for a significant change in the 6 digits.

7.1.2 Press the **Paper Source** button until the LCD Displays **Sen: EdgeAD**.



Place a business card under the Sensor.



Watch the 6 digits on the right side of the Control Panel LCD. Remove the business card, and look for a significant change in the 6 digits on the right side of the display.

8. If the ***Edge AD Sensor*** does not react to media:

8.1 Re-seat the ***Print Head Foil Cables*** at both ends, that carry the signal to the ***Driver Board***.

9. *Edge Sensor* adjustment:

9.1 Enter **Self Diagnostics Mode** by powering on the ***Printer*** while holding the **Paper Source** + **Cut/Eject** + **Paper Feed -** buttons. The Display will indicate **Check:Test**

9.2 Press the **Enter** button once then navigate through the menus until the display indicates **Test:Sensor**.

9.2.3 Press the **Enter** button once then navigate to **Sen:Edge AD xxx xxx.**

9.2.4 Leaving the ***Front Cover*** open, Load plain photo copy paper into the ***Printer***.

9.2.5 Release and move the print head over the paper and observe the changes to the ***Right Value*** "XXX"

9.2.6 Confirm that the ***Right Value*** is within the range of **0C0 - 0CF** with the Values.

9.2.6.1 Adjust ***VR3 (rough)*** and ***VR6(fine)*** adjustment pots within the range stated above.

10. ***Top Margin adjustment*****:** Perform **Top/Side and bottom margin** adjustments.

10.1 Enter **Self Diagnostics Mode** by powering on the ***Printer*** while holding the **Paper Source** + **Cut/Eject** + **Paper Feed -** buttons. The Display will indicate **Check:Test**

10.2 Load Roll Paper into the ***Printer***.

10.3 Navigate to **Check:Adjustment** and press the **Enter** button. The display will indicate **ADJ:Check Skew**

10.4 Navigate to **ADJ: Top & Bottom** and press the **Enter** button. The display will indicate **ENTER:PRINT**

10.4.1 Press the Enter button to print the adjustment pattern.

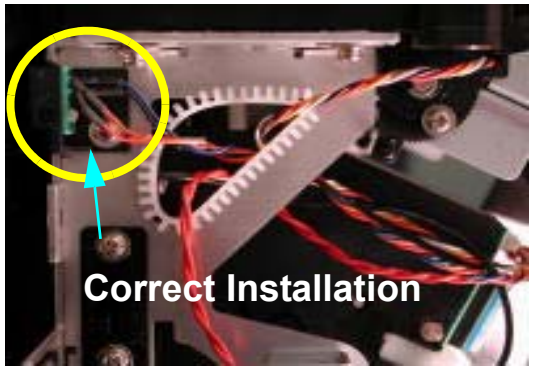
10.4.2 Measure the distance from the leading edge, the side(closest to the home postion) and the bottom and record the measurements. Input the measured values into the respective areas.

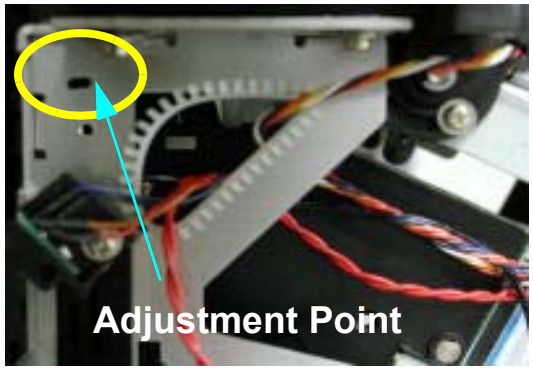
The required measurements are as follows: Top and Side = 3mm: Bottom = 14mm. Once the printed pattern measures the above values, no adjustments are required.

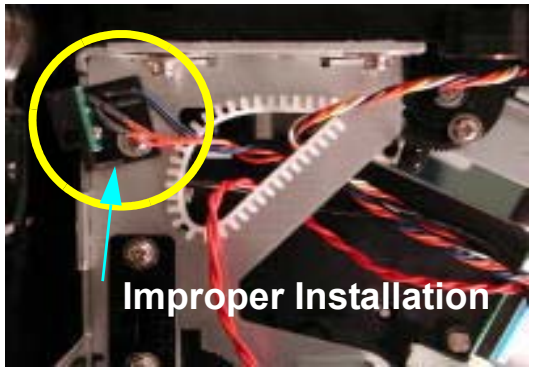
10.4.1 The ***LCD*** should display **RearAD**: followed by **xxx xxx xxx** (Example: **07F 040 04E**).

11. If the above symptoms still occur, perform the following ***Mechanical Adjustment*** for the ***Edge Sensor*** and then repeat ***Step 3: Top Margin*** adjustment.

11.1 Ensure that the Edge sensor is installed correctly. refer to figures below. If any changes have been made to the physical position of the sensor steps 1 and 2 must be performed.

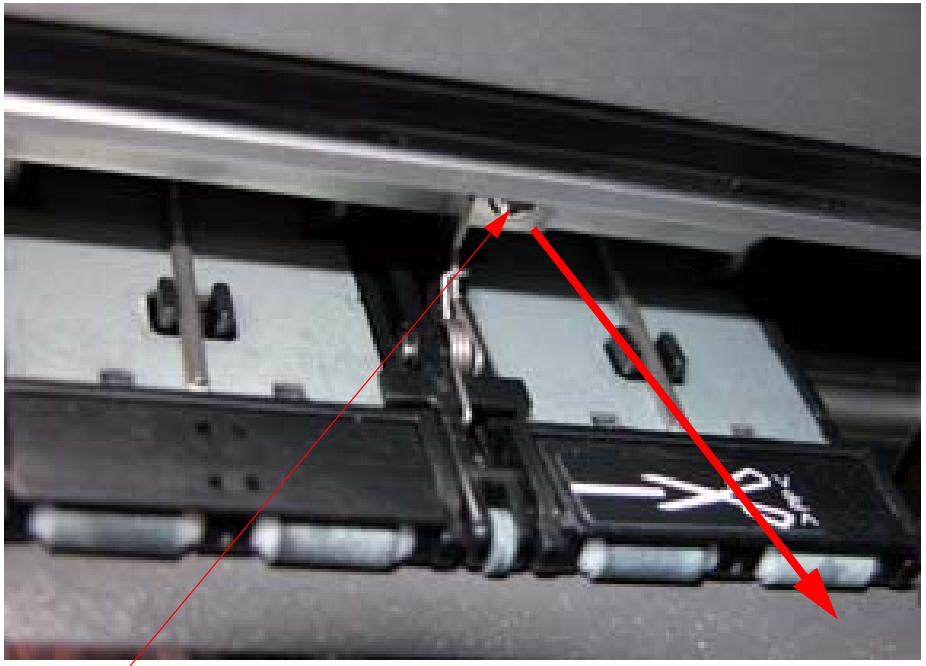






Paper Thickness Sensor Actuator Repair

1. Remove the ***Screw*** and the ***Actuator*** pictured below.



Screw

Pull the Actuator Bracket down and out, in the direction of the arrow. The device should be rotated 90 degrees to free the “hockey stick” end.

Actuator and Screw

2. Installation requires rotation of the “hockey stick” end to finesse the “end” through the paper path.

Pause, to save Paper (Print Head Alignments)

While performing electronic Print Head adjustments:

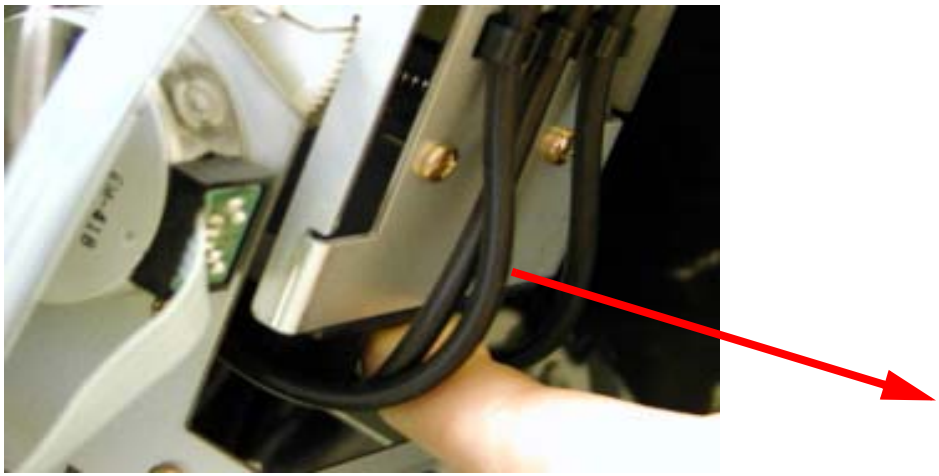
1. When the ***Control Panel LCD*** displays **Enter to Print**:
   - 1.1 If you press the **Enter** Button, all the existing alignment patterns will be printed.
     - 1.1.1 No alignment is possible, just pattern accuracy verification. A lot of paper and time will be used.
   - 1.2 If you press the **Pause** Button, the ***Control Panel*** will display the current value for pattern #1.
     - 1.2.1 If you modify the value, and press **Enter**, pattern #1 will be printed using the new value.
     - 1.2.2 If you do not modify the value, and press Enter, pattern #2 will be displayed.
     - 1.2.3 Etc., etc…….

   Current alignment pattern verification and alignment is possible at the same time. A lot of paper and time can be saved.

Print Head Replacement

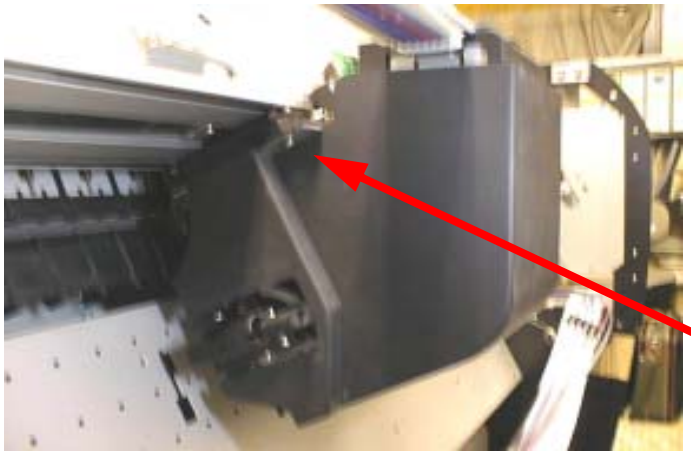
Many technicians prefer to enter the Head Rank Information (Print Head Calibration Information) before installing the Print Head. If that is the case, enter the information before step 1, following the directions listed in steps 33 and 34.

1. Unplug the ***Printer***.
2. Remove the ***Control Panel.***
3. Remove the ***Top Cover***.
4. Remove the ***Left Side Cover***.
5. Remove the ***Right Side Cover***.
6. Place a drop cloth under the center of the ***Printer***.
7. Release the ***Print Head*** by pulling back on the ***Cap Assembly*** as shown below.



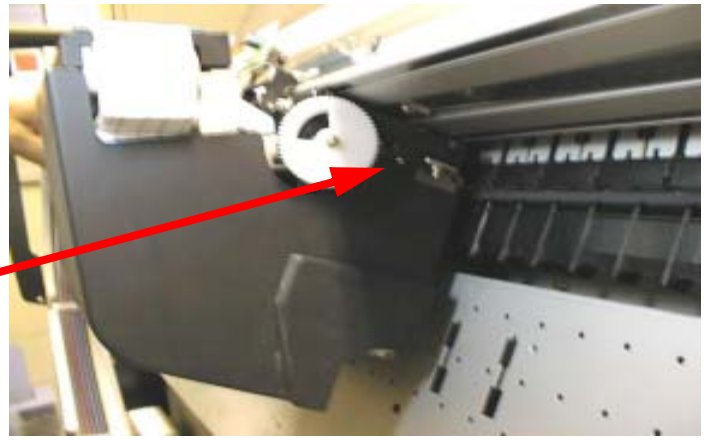
9. Move the ***Print Head*** to the center of the ***Printer***.

10. Remove the ***Print Head Cover*** by removing the two ***Screws*** as shown below.



Left Side Screw

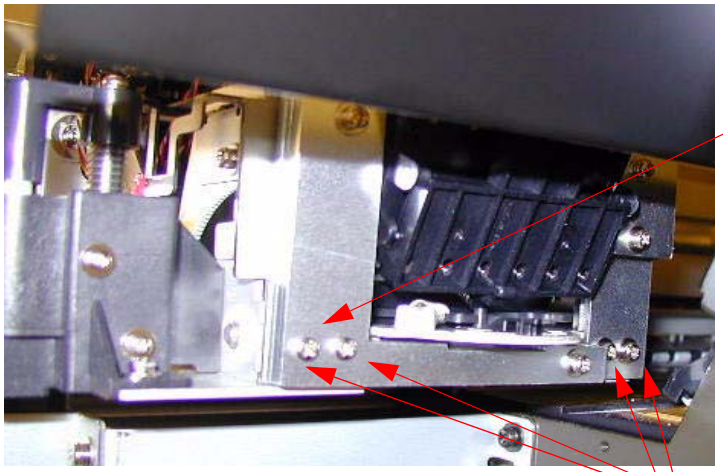
Right Side Screw



11. Remove the ***Print Head Weight***.

    11.1 Move the ***Print Head*** to the far left side of the ***Carriage Rail***.

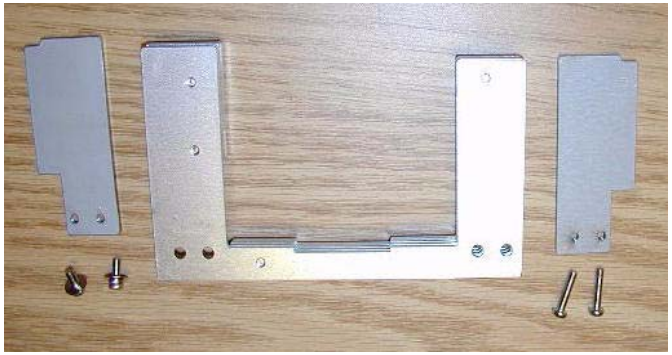
    11.2 Remove the 4 ***Screws*** pictured below.



2 long screws go here

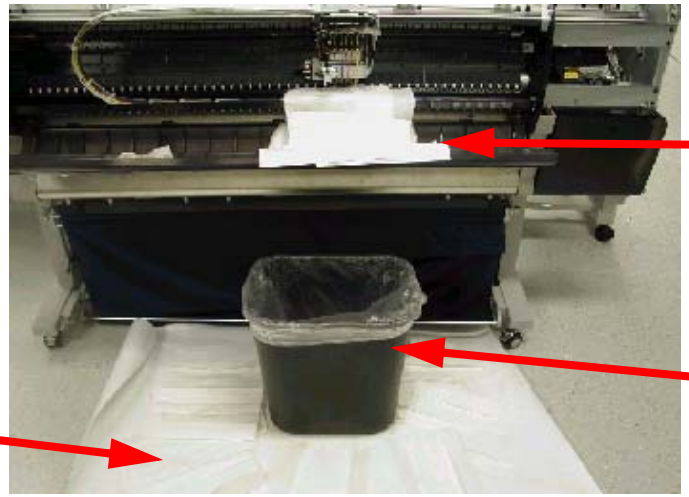
View from below

Remove 4 screws



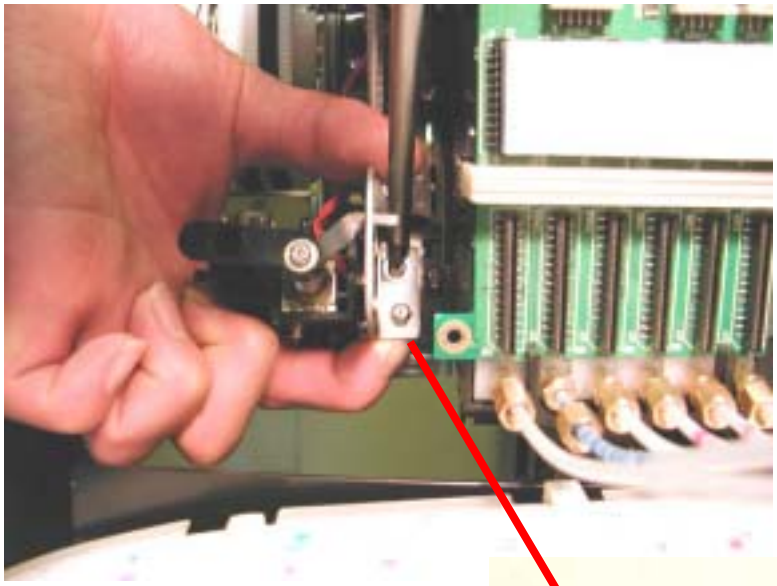
Weights and screws

12. Place a trash can with a liner under the ***Print Head*** as shown below.

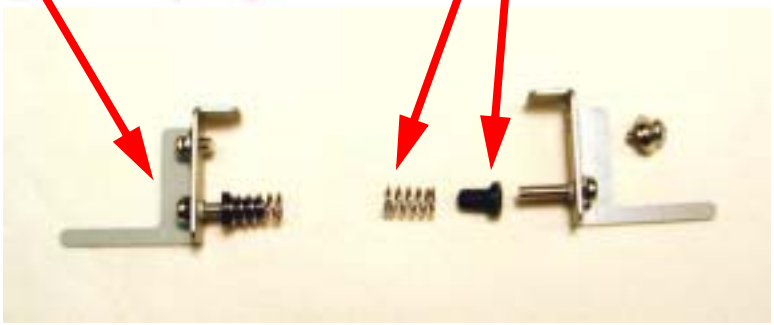


14. Gently disconnect all ***Cables*** that connect the ***Print Head*** to the ***Printer***.
    - 14.1 6 foil ***Print Head Cables***.
    - 14.2 3 ***Multi Pin Connectors***.
    - 14.3 1 ***Ground Wire***.

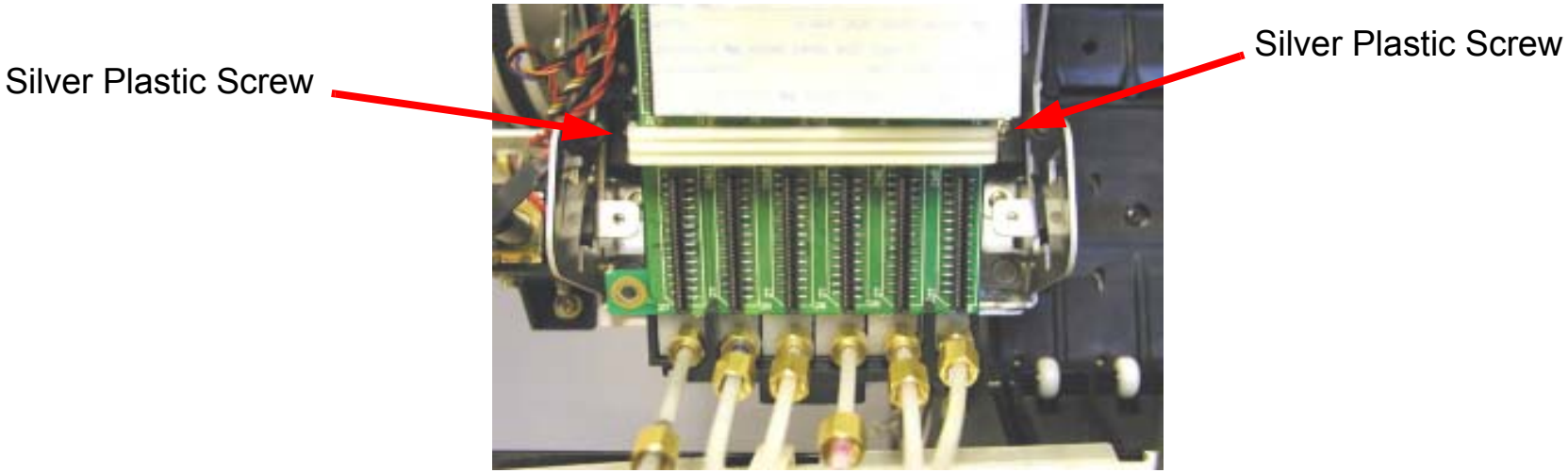
15. Remove the small metal ***Spring Tension Bracket Assemblies*** from the left and right side of the Print Head.



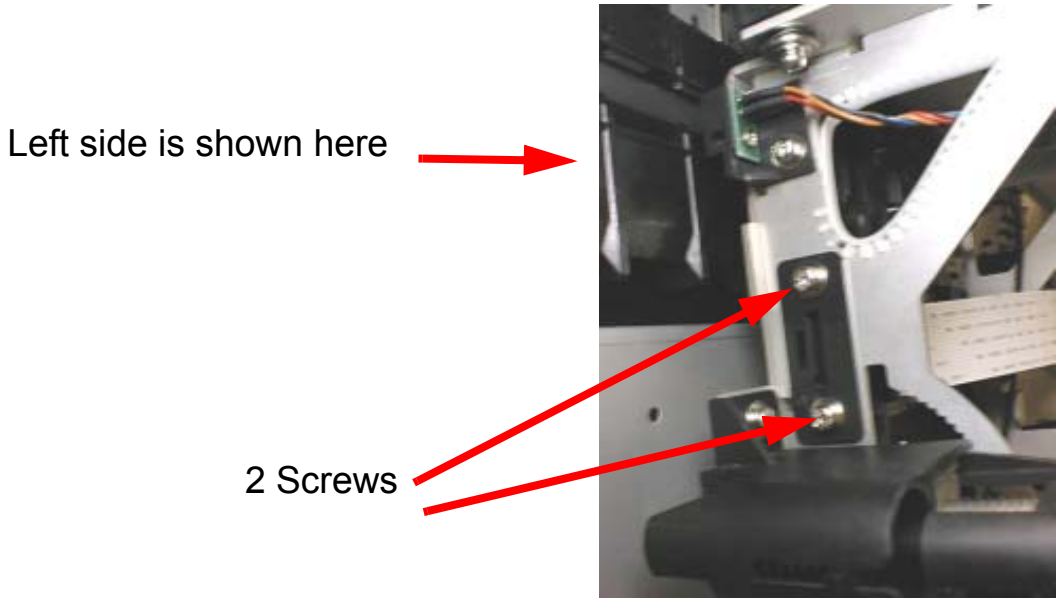
Glue the spring to the black plastic piece for easier re-assembly.



18. Remove the 2 ***Silver Plastic Screws*** shown below.



19. Remove the 2 ***Screws*** from the left and right ***Print Head Mounts***, and slide out the ***Mounts***.



20. Move the ***Carriage Mechanism*** to the left side of the ***Carriage Rail***.

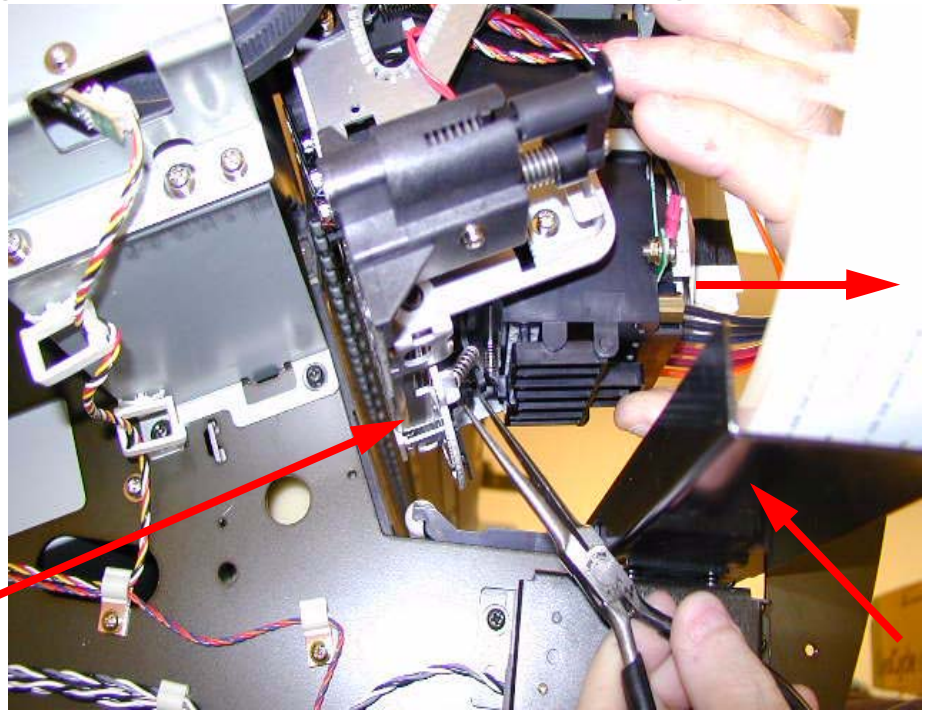
21. Remove the ***Print Head Alignment Tension Spring***.

21.1 Move the ***Print Head Alignment Lever*** (A13 Slant) to the right, to release pressure on the ***Spring***.

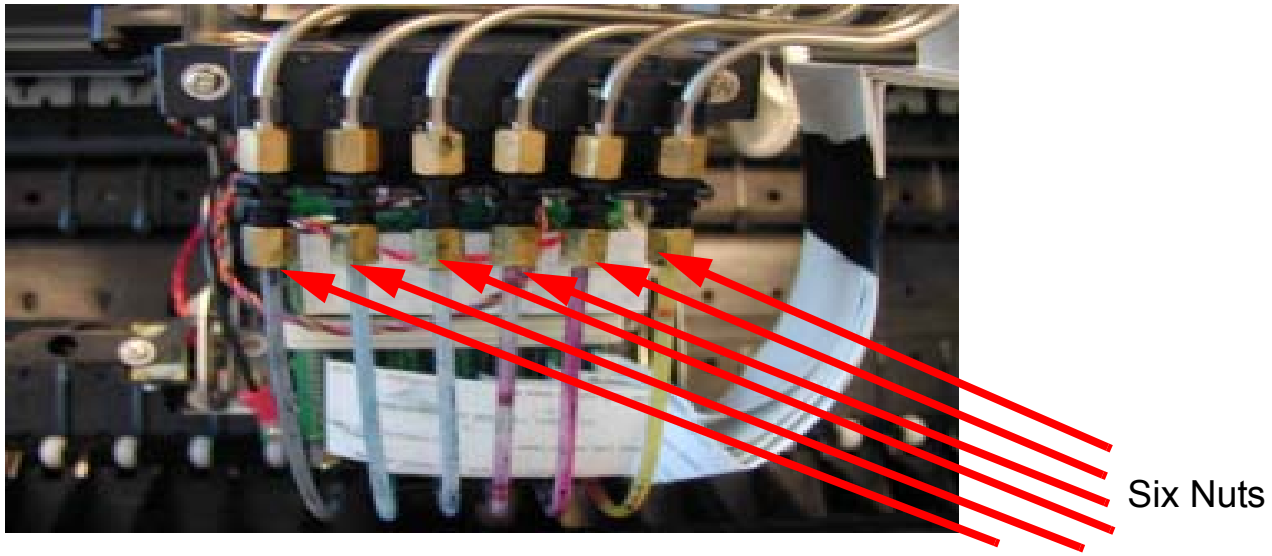
21.2 Gently grab the ***Spring*** with a pair of needle nose pliers.

21.3 Pivot the bottom of the ***Print Head*** away from the ***Carriage Mechanism*** to release pressure on the ***Spring***.

21.4 Remove the ***Spring***, but leave the ***Print Head*** in the ***Carriage Mechanism***.



22. Loosen the 6 ***Nuts*** shown below, and separate the ***Plastic Ink Tubes*** from the ***Plastic Fittings***.



The Print Head is filled with Ink. It is important to keep the Print Head Nose and the Ink Tubes at their current level (angle) while removing the Print Head.

24. Remove the ***Print Head***.

    24.1 Place paper towels in the waste basket.

    24.2 Pour the ink in the Print Head into the paper towels in the waste basket.

    24.3 Place the ***Print Head*** in a water tight baggie, and set aside.

25. Photo copy the ***Print Head ID*** information on the new ***Print Head***.

Head ID #3 Head ID #2 Head ID #1

26. Install the new ***Print Head***.

26.1 Be careful not to scratch the nose of the Print Head when installing.

27. Replace the ***Print Head Weights***.

28. Replace the ***Print Head Alignment Tension Spring***.

28.1 Rock the ***Print Head*** away from the ***Carriage Mechanism***.

28.2 Place the ***Spring*** in position with a pair of needle nose pliers.

28.3 Rock the ***Print Head*** back into position, compressing the Spring.

29. Replace ***Print Head Fasteners***, but do not tighten any of them fully.

If you completely tighten any of the eight Screws, the Print Head will not align (A13 Slant).

29.1 The 2 ***Print Head Mounts***, and 4 ***Screws***.

29.2 The 2 ***Sprint Tension Brackets***.

29.3 The 2 course ***Screws*** that fasten the ***Print Head*** to the ***Print Head Mounts***.

30. Connect the ten ***Print Head Cables.***
    - 30.1 Connect the 6 foil ***Print Head Cables***.
        - 30.1.1 Ensure that the ***Cables*** are fully seated, and the ***Traces*** have not been damaged.
    - 30.2 Connect the 3 ***Multi Pin Connectors***.
    - 30.3 Connect the ***Ground Wire***.

31. Connect the 6 ***Ink Tubes***.

    Do not over tighten the Brass Nuts. Use your fingers, only.

32. Close the ***Front Cover***.

33. Turn on the ***Printe***r while depressing the **Paper Feed +** + ***Paper Feed -*** + **Enter** buttons (Self Diagnostic Mode) and inspect the ***Print Head*** while it fills with ***Ink*** ***(look for leaks)***.

34. Enter the Print Head ID information.
    - 34.1 Navigate to **Check: Adjustment: Input Rank**.

35. Perform a Nozzle Check.
    - 35.1 **Check: Adjustment: Nozzle Check**.
    - 35.2 Clean if necessary.

36. Perform the A13 Slant adjustment.
    - 36.1 **Check: Adjustment: A13 Slant**.
        - 36.1.1 Move the ***A13 Slant Adjustment Lever*** to the left to move the Magenta lines closer to the leading edge of the paper.
        - 36.1.2 Move the ***A13 Slant Adjustment Lever*** to the right to move the Magenta lines farther from the leading edge of the paper.

Inspect the pattern with a strong lens. The black and magenta lines should be within 1/2 a dot of each other for the majority of the lines.

37. Tighten the ***Print Head Fasteners***.

    It is important to tighten the Print Head Fasteners in the exact order listed below or the A13 alignment will be altered. Do not over tighten.

    37.1 Tighten the 2 ***Screws*** that fasten the 2 ***Spring Tension Brackets***.

    37.2 Tighten the 4 ***Screws*** that fasten the 2 ***Print Head Mounts.***

    37.3 Tighten the 2 ***Silver Plastic Screws*** that fasten the ***Print Head*** to the ***Print Head Mounts***.

        37.3.1 Do not over tighten.

38. Check the A13 Slant adjustment pattern for any change.

    38.1 If there is a change:

        38.1.1 Loosen the ***Print Head*** and re-tighten (be more gentle).

    38.2 Check the **A13 Slant** adjustment pattern again.

        38.2.1 Repeat the process as necessary.

39. Re-install the ***Print Head Cover.***

40. Print the adjustment patterns.

    40.1 Press the **SelecType** button to display **Adj: Test Print.**

    40.2 Press the **Enter** button to execute.

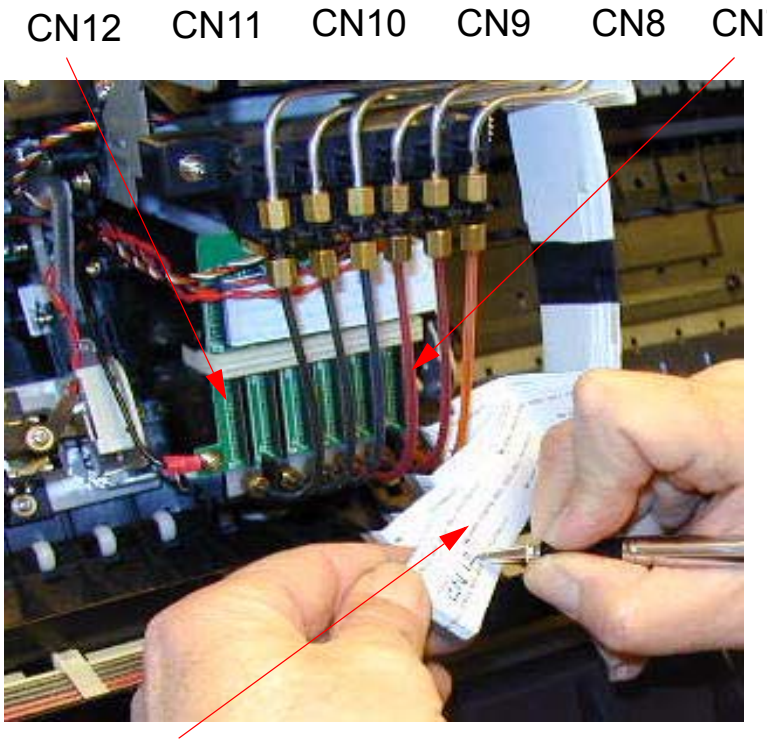
41. Verify that all alignment patterns are correct.

42. Perform all necessary electronic alignments.

Print Head Cable Replacement

Incorrect replacement of the Print Head Cables can cause serious damage to the Driver Board.

1. Mark each ***Cable*** with the appropriate ***Connector*** number, as you disconnect the cables from the ***Print Head***...



Print Head	***Board***
CN7	CN19
CN8	CN20
CN9	CN21
CN10	CN22
CN11	CN23
CN12	CN24

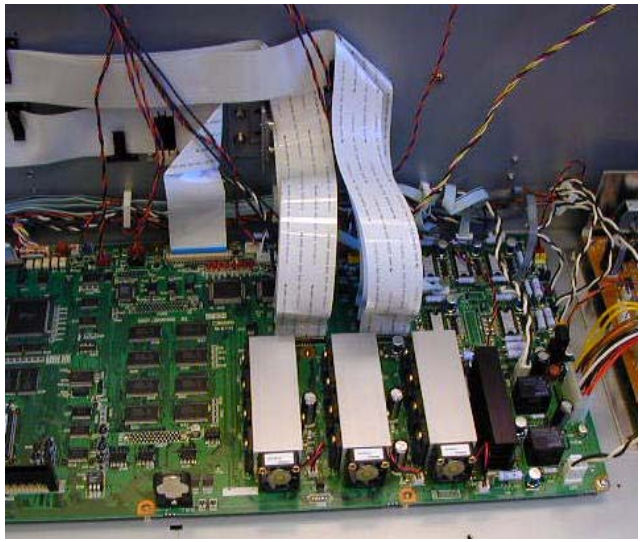
Note: Marking the Cables is to ensure that the New Cables are connected properly.

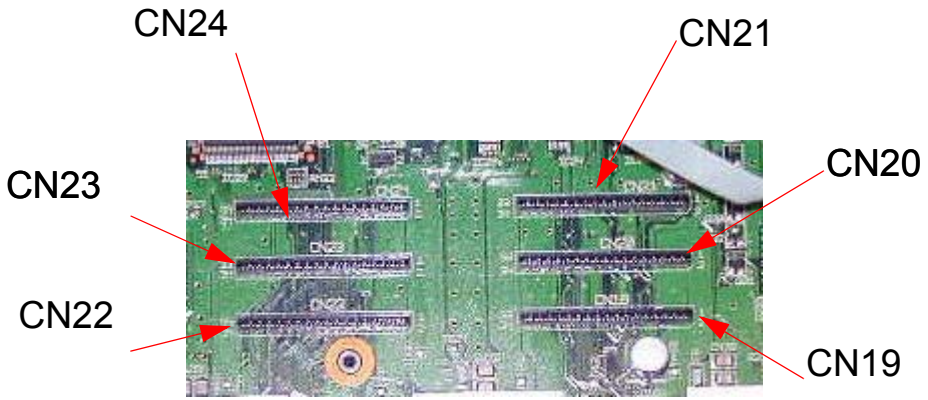
Note: Failure to connect the New Cables properly results in Driver Board damage.

2. Mark each ***Cable*** with the appropriate ***Connector*** number as you disconnect each ***Cable*** from the

Driver Board.

Mark these cables as you disconnect them with their connector number.





3. Remove the ***Old Cables*** from the ***Printer*** while preserving their configuration. (Tape them together on the ***Print Head*** side, and on the ***Board*** side.)

4. Lay the ***New Cables*** next to the ***Old Cables***, and duplicate the configuration of the ***Old Cables*** (the folding and order).

5. Transfer the ***Connector*** markings on to the ***New Cables*** from the ***Old Cables***.

6. Install the ***New Cables*** and verify the ***Connector*** markings match the ***Connector*** being used.

Sensors, Motors, Fans, Solenoids

Sensors	Corresponding Device Name:
Home Position Sensors:	***Sub Tank Valve HP Sensor*** ***Cap Assembly HP Sensor*** ***Shutter Box HP Sensor*** ***Carriage HP Sensor*** ***Head Gap HP Sensor***
Ink Sensors:	***Ink Cartridge Sensors (CSIC x6)*** ***Sub Tank Sensors (3 position sensors – Near Empty, Full, Over Full)*** ***Air Pressure Sensor*** ***Ink Detection Sensor (Laser Detection for Nozzles)***
Encoders:	***Carriage Encoder*** ***Paper Feed Encoder***
Paper Sensors:	***Paper Release Sensor*** ***Rear Sensor*** ***Front Sensor*** ***Edge Sensor*** ***Paper Thickness Sensor***
Cover Sensors:	***Front Cover Sensor (x2)*** ***Ink Cartridge Cover Sensor***
Temperature Sensors:	***Head Temperature Sensor*** ***Head Drive Temperature Sensor (3, one on each heat sink)***

Motors, Fans, or Solenoids	Corresponding Device Name:
Motors	***Shutter Motor*** ***Head Gap (Slide) Motor*** ***Air Pump Motor (also closes sub tank valve)*** ***Pump Motor*** ***Cap Motor (retracts cap, moves wipers, and unlocks head)*** ***Paper Feed Motor*** ***Carriage Motor***
Solenoids	***Ink Cartridge Solenoid (6, one for each color)*** ***Paper Release Lever Locking Solenoid*** ***Air Pressure Release Solenoid*** ***Cutter Blade Solenoid***
Fans	***Power Supply Fans (2 fans)*** ***Driver Heat Sink Fans (3, one on each head sink)*** ***Right Flushing Box / Nozzle Check Fan*** ***Paper Suction Fans (3 fans)***

Starter Cartridge / Ink Information

1. The ***"Ink Cartridge Starter Set"*** contains a ***Light Cyan Cartridge*** with a unique ***CSIC Chip***. The unique ***CSIC Chip*** compels the ***Printer*** to become either a Dye (Stylus Pro 10600), Archival Pigment (Stylus Pro 10600CF), or Ultra Chrome Pigment (Stylus Pro 10600UC) model.

2. The starter ***Light Cyan Cartridge*** reverts to a standard ***Light Cyan Cartridge*** after one use.

3. The ***"Ink Cartridge Starter Set"*** only ships with new ***Printers*** and can not be ordered separately.

Waste Ink Maintenance (Service Request 00000100)

The **Service Request 00000100** error message indicates that the ***Waste Ink Tank*** is full, and the ***Pads*** must be replaced. Additionally, the related counters must be reset.

1. Replace the ***Waste Ink Pads***.

2. Reset the related ***Counters***.

   2.1 Enter **Maintenance mode2**. **Paper Source**, **PF-**, **Cut/Eject** + **Power On**.

   2.2 Press **SelecType** until **CLEAR COUNTERS** is displayed then press **Enter**.

   2.3 Press **Paper Source/Item** until **INIT. CLEANER=EXEC.** is displayed then press **Enter**.

   2.4 Press **Paper Source/Item** until **INIT. WA. INK=EXEC.** is displayed then press **Enter**

   2.5 Press **Paper Source/Item** until **INIT. Flushing Box=EXEC.** is displayed then press **Enter**.

   2.6 When completed turn the printer **OFF** and back **ON** normally.

What's New?

Three Models / Ink Types

1. Stylus Pro 10600DYE
2. Sylus Pro 10600ARC
3. Stylus Pro 10600UCM
   - 3.1 Stylus Pro 10600UC - An Ultra Chrome Ink User can perform the initial install with Photo Black or Matte Black. After installation the printer can be switched between Photo Black and Matte Black Ink . The ink type DYE/ARC/UC used at installation Can Not be converted afterward.

New Driver Features

1. Paper Configuration options have been added, like the Stylus Pro 7600/9600
   - 1.1 Paper Configuration - Stylus Pro 10600UC Only
     - 1.1.1 Color Density, Drying Time per Print Head Pass, Paper Feed Adjustment, Paper Thickness, Paper Suction, and Cut Method.

PRINTER SERVICE UTILITY

1. Like the one for the Stylus Pro 7600/9600
   - 1.1 End User Utility: Print Head Alignment (Uni & BI), Custom Paper Configuration, Power Head Cleaning,
   - 1.1 Firmware Update

SelecType Paper Configuration Menu

1. Like the one for the Stylus Pro 7600/9600
    1.1 Drying Time per Print Head Pass, Paper Feed Adjustment, Paper Thickness, Paper Suction, Cut Method, Cut Pressure, and Print Adjust (fine microweave pattern Adj.)

Wrong Ink Cartridge Error

Reasons for a Wrong Ink Cartridge Error:

1. On a new installation if the ***Ink Starter Set*** is inserted into the ***Printer*** prior to turning the Printer on for the fist time the printer displays **Wrong Ink Cartridge** error with the Lt. Cyan Led ON.

2. During ***Printer*** service if the ***Driver Board*** is replaced without parameter backup and restore.

3. Dye ***Inks*** are installed in a pigment ***Printer*** or vice versa.

Resolutions:

1. Adjust the ***Printers Ink Cartridge*** type information to match the ***Ink Cartridges*** that are installed.

   1.1 Setting the **NPD** Value

   1.1.1 Turn the ***Printer*** off.

   1.1.2 Press and hold the **[Paper Source]** + **[Cut/Eject]** + **[Paper Feed -]** buttons then turn the printer on and release the buttons when the ***VIEW COUNTERS MENU*** is displayed.

   1.1.3 Press the ***[Select Type]*** button until you see ***SERVICE CONFIG MENU*** in the display.

   1.1.4 Press the ***[Item]*** button until you see ***NPD=*** in the display.

There are three values that can be set for the NPD value they are:

NPD=0 Null - Not Dye or Pigment

NPD=1 Archival Pigment Ink

NPD=2 Dye Ink

NPD=3 UltraChrome Pigment Ink

   1.1.5 If the NPD value displayed does not match the ink type for the printer, use the **[Paper Feed -]** or the **[Paper Feed +]** button until you see the correct NPD value for your printer (***NPD=n***) in the display.

1.1.6 When you see the correct ***NPD=n*** value for your printer press the **[Enter]** button an * will be displayed on the far right side of the display.

Example: ***[NPD=n *]***

1.1.7 After you see **[*NPD=n* *]** in the display turn the ***Printer*** off.

Vertical Yellow Lines

Symptom

Yellow vertical line(s), printed in a consistent location on every image.

Solution

1. Clean the ***Timing Strip/Fence*** with a soft cloth. Pay special attention to the area(s) of the ***Fence*** that corresponds to the location(s) of the vertical yellow line(s).
2. If cleaning the ***Timing Strip/Fence*** does not resolve the issue, replace the ***Fence***.

Revision History

July 29, 2004

1. A ***Carriage Mechanism*** replacement chapter was added.

May 21, 2004

1. The Driver Board Replacement chapter was modified to reflect the new Firmware installation proceedure. (Necessary because of 10000 and 10600 board compatability issues).
2. An Ink/Cleaning Cartridges quick reference chapter was added.

February 19, 2004

1. A chapter was added on the removal and installation of the ***Paper Thickness Actuator***.
2. A chapter was added on ***Print Head Cable*** Replacement.

January 22, 2004

1. The ***Driver Board*** replacement chapter was modified to include board part numbers.
2. The Error Code Chapter was updated.
3. A chapter was added on **Paper Jam** errors

July 31, 2003

1. A chapter describing the new ***Print Head*** for Dye printers was added.

2. A chapter describing the operation and trouble shooting for the ***Air Pressure System*** was added.

May 27, 2003

The print head calibration information picture was updated with the correct image.

April 29, 2003

1. A chapter describing the new Print Head for dye printers was added.
2. The Print Head Weight removal steps were added to the Print Head Removal chapter.

January 30, 2003

1. A chapter that explains how to set the driver for the Pro Graphics 24“ Test Print was added.
2. The Paper Loading Error chapter was improved.

January 17, 2003

1. The Communication Error chapter was improved.